TALOSTONE®

Your Natural Choice®

Fabrication, Installation Safety & Health Protection Guide

talostone.com.au

V.01.2019

Talostone® Fabrication & Installation, Safety & Health Protection Guide

Important Notes!

This Guide includes safety and health information and recommendations. However, it does not serve as professional advice, nor does it replace any stonemason's personal responsibility to apply all relevant health and safety measures. To protect the health and life of all employees exposed to silica dust, it is always necessary to consult with a local advisor. All stonemasons, who work on Talostone® slabs, agree that their business operation already meet Safe Work Australia and OHS Australia standards before ordering and working on Talostone® products. Talostone® reserves all rights on not to be responsible for any consequences and not to supply slabs to stonemasons who do not meet Safe Work Australia and OHS Australia standards.

Fabrication and Installation Manual

Introduction

Talostone® offers a wide range of engineered stone products for high quality, luxurious interiors, kitchen or bathroom designs at a more cost-effective rate than traditional stone solutions.

Talostone® is a professional wholesaler of engineered stone slabs. Since 2013, we have been stocking jumbo size slabs across our range – either 3200x1600mm or 3075x1600mm depending on the colours. The extra-large slab sizes help homeowners save on material costs and allow designers to maximise slab usage and, therefore, design potential. For some popular commercial project colours (please refer to Page-62 for more Talostone® Product Specifications), we also supply the slabs in size of 3060x1440x20mm.

At Talostone® we take the design and manufacture of our products very seriously and invest heavily in Research and Development on our colour selection. It takes, on average, a year and a half from original conception to the release of a new colour. Our Marble Range and Premium Marble Range colours are matched as closely as possible to the original marble veins and colours allowing us to accurately imitate the look of natural beauty. Talostone® Premium Marble Range colours with wide veins are manufactured in pairs to assist designers to utilise the matching of major veins as much as we can to keep the feature of natural marble. As the nature of manufacturing these colours slab by slab, the paired slabs are not able to be matched 100% for all veins and it is stonemasons responsibility to work on the paired slabs at the best and accepted outcome by consumers.

All our customers choose Talostone® for its premium quality, best colour selection, excellent service and large slab sizes. Whatever the colour scheme of your kitchen, bathroom or interior space there is a Talostone® colour to match your design.

This Fabrication & Installation Guide is to provide stonemasons and installers to fabricate and install benchtops from slabs to job sites. Talostone® offers 15-year Limited Warranty to original purchasers of benchtops from licensed and certified stonemasons with respect to the quality of the slabs **directly from Talostone®** and used by the stonemasons to fabricate the benchtops.

This manual is published by Talostone® to inform stonemasons with the recommendations of Talostone® for fabricating and installing benchtops from slabs supplied directly by Talostone®. This manual does not replace normal and local industry standards for the fabrication and installation.

Any failure by a stonemason to comply with the recommended methods of fabrication and installation of benchtops from slabs may result in claims by an end user against the

stonemason and refusal of a claim made by an end user under 15-year Limited Warranty given Talostone® to the end user. Please direct any questions about the recommendations in this manual to Talostone® Head Office. Talostone® offers a 15-year Limited Residential and Commercial Warranty to the Stonemason in respect to each qualified slab sold by Talostone® directly to the stonemason. **At no circumstance shall Talostone® slabs be allowed to re-sell to anyone.** Talostone® is the only brand distributing our slabs to stonemasons directly. The terms and conditions of the 15-year Limited Residential and Commercial Warranty to the stonemasons and end users are set forth in this manual.

Distribution:

Stonemason/Installer

Architect/Designer

Developers/Builder

Kitchen/Joinery Company

Products that are referred to in this document may be either trademarks and/or registered trademarks of the respective owners. The publisher and the author make no claim to these trademarks.

Talostone® and/or its assigns are not responsible for errors or omissions, or for damages resulting from the use of information contained in this document. In no event shall the publisher and the author be liable for any loss of profit or any other commercial damage caused or alleged to have been caused directly or indirectly as a result of any person relying upon any information contained in this document. All work carried out by any user of this manual on any Talostone® slab must be done in accordance with all laws and regulations relating to that work and the slab, including but not limited to, occupational health and safety laws and laws relating to the protection of the environment.

Note: this manual is not for general distribution.

This manual supersedes all previous manuals. Content is subject to change at any time without notice. The use of the term "Distributor" and "we" throughout this document refers to Talostone Pty Ltd. Talostone® is a registered trademark of Talostone Pty Ltd, ABN 78 162 170 194.

Version 2019.v1

Effective Date: 01st January 2019

Contents

Basic Talostone® product information

Applications

Talostone® is ideal for a wide range of interior commercial and residential applications, including those subject to heavy use. Common Talostone® applications include: kitchen benchtops, vanity tops, interior wall panels, feature walls, and furniture pieces.

Talostone® is NOT suitable for exterior use, or any areas that are exposed to direct sunlight UV radiation or excessive heat over 180˚C. Talostone® slabs are available in three main sizes *(3200x1600mm, 3075x1600mm, and 3060x1440mm depending on the colours)* that are ideal for varieties of residential and commercial applications.

Available slab sizes are:

- 3200mm x 1600mm
- 3075mm x 1600mm
- 3060mm x 1440mm (only available for some colours in Standard Range to offer more options to our customers for commercial projects requiring this size.)

Available slab thicknesses are:

- 20mm, 30mm *(selected colours only)*, and 12mm *(12mm is mainly for splashbacks, feature walls, and any interior wall panels with backlit effect. Selected colours only)*

Current Talostone® ranges are (from economical range to luxury range):

- 1 - Standard Range
- 2 - Deluxe Range
- 3 - Premium Range
- 4 - Marble Range
- 5 - Premium Marble Range

The slab dimensions are nominal only. These are to be used for storage and transportation purposes. Actual usable slab surface is slightly less per side, and varies from slab to slab. If you need to use the maximum width and length of the slab you must advise Talostone® when you order and we will check the availability for you. Please inspect the slabs before you cut for your special requirements. Polish, transportation damage or any other defect that may be visible. If the slab proves to be unsuitable it should be exchanged for another prior to cutting and within seven days after picking up the slabs.

Note: Not all colours are available in all sizes and thicknesses. **Talostone Product Specifications** (*Page-63*) was the updated Talostone® product specifications by the time we revised this version. Please check with Talostone® before you quote to your customers. All above information is subject to change without notice. For the latest version of Talostone® Product Specifications, please contact Talostone® Head Office at 02 8783 0600 or send emails to info@talostone.com.au.

Slab Return Policy

Any slab that is not suitable should be returned for credit or exchange. This can only be done providing the slab has not been altered in any way. If returned within seven days from picking up, no restocking fee is applied. After seven days a restocking fee of AUD100.00 may apply for each returning.

- Slab(s) cannot be returned 30 days after the invoice date.
- Slab(s) cannot be returned if there is any damage after picking up.
- Slab(s) cannot be returned if there is any outstanding invoice not paid.
- Slab(s) cannot be returned if Talostone® has no same batch slab left at our warehouse.

Safety Guidelines

Talostone® has always been at the forefront of creating a safe work environment. We require that our stonemasons and installers to follow the same level of conscientiousness regarding safety and comply with local and national occupational, health and safety regulations. Adhering to the following simple safety rules will help to prevent an accident. “Safety is the key to our business success.”

For your safety, read instruction manuals before operating the different tools. Learn the tool applications and limitations as well as the hazards specific to them.

- Maintaining a clean and neat working environment and all working environment complies to all local and national occupational, health and safety regulations.
- Keeping working areas uncluttered.
- Keeping guards in place and in working order.
- Keeping work area clean.
- Do not use tools in dangerous environments. All tools that may be exposed to water or moisture must be cerfified. Please keep area clean, dry, well-ventilated and well-lit.
- Children and visitors should be kept at a safe distance from the work area.
- Making workshop childproof with padlocks, master switches or by removing starter keys.

- Do not force tools. A tool will do the job better and safer at the rate for which it was designed.
- Using the right tools. Do not force a tool or attachment to do a job for which it was not designed.
- Wearing proper apparel. Loose clothing, gloves, neckties, rings, bracelets and other jewellery may get caught in moving parts. Non-slip footwear is highly recommended. Wear hair-protective covering to contain long hair. Wear ear/nose protectors and safety shoes.
- Always wearing a high quality dust mask and follow Australian Regulations for proper ventilation to keep the dust level within Australian regulation authorities – engineered stone dust contains silica which can be hazardous to your health. ANY DRY FABRICATING PROCESS IS PROHIBITED. Always shape and cut material with wet tools, reducing the amount of airborne particles to be inhaled.
- Always using safety glasses or approved eye protection. Everyday eyeglasses only have impact-resistant lenses; they are not safety glasses.
- Using high quality clamps to secure work when necessary, freeing both hands to safely operate the tool.
- Do not over-reach. Keeping proper footing and balance at all times.
- Maintaining tools in top condition. Keep tools sharp and clean for best and safest performance. Following instructions for lubricating and changing accessories.

Regarding to safe work regulations, please refer to,

https://www.safeworkaustralia.gov.au/

Handling

The slabs are best loaded/unloaded from a container or truck with a forklift or lifting device capable of handling at least 1,000kg.

Because of the weight, proper safety shoes and gloves should be worn.

Talostone® material nominal weight

- 12mm thickness material weighs 27-31kg per square metre.
- 20mm thickness material weighs 42-51kg per square metre.
- 30mm thickness material weighs 67-71kg per square metre.

Handling slabs either singularly or in multiples of two depending on your equipment specifications. Use clamps or sling straps and lift the slabs face-to-face. For better grip, take care to clasp the slabs from the back side (while face-to-face). Refer to the use of clamps, please strictly work according to your clamps supplier instruction.

Warning: *Keep a safe distance when handling/lifting the slabs and NEVER under the slabs at ALL time.*

Vehicle Loads

It is the responsibility of the driver to ensure that the load is within the legal carrying capacity of the vehicle in Australia. We have no way of determining this at our premises. As a guide you must allow approximately 180kg per 12mm slab, 280kg per 20mm slab, and 400kg per 30mm slab plus the weight of any other items already loaded on the vehicle.

Securing the Load

It is the responsibility of the Driver to ensure that the load is fully supported and safely secured to the vehicle prior to leaving our premises. Talostone® will not allowed to secure the load to your vehicle.

Storage

Talostone® slabs must be stored in a manner that prevents warping.

Slabs should be stored so that the product is kept in a perfectly uniform manner that minimises warping. Care must be taken to store Talostone® slabs in a manner that allows for easy identification of colour and batch numbers.

Slabs must always be stored in a way that the polished surface is not exposed to direct sunlight. It is necessary to store the slabs in a shaded area and to keep the last slabs in

each rack in a position in which the backside is facing out. Storage temperatures should not exceed 55˚C.

At stonemason storage place, there should be no more than 20 slabs to each A frame (evenly on each side no more than two 20mm slabs to another side of the A frame) with the slabs face-to-face and back-to-back.

Note: *Talostone® is a heavy material that can cause serious injury or death if not stored, secured or handled properly. It is highly recommended that all slabs must be secured during storage to maintain a safe working environment including adherence to any local and national laws and regulations.*

Visual Slab Inspection

Performing a visual inspection for defects or colour matching is essential when working with Talostone® and should be a standard practice before cutting. Complete the following slab inspection steps as a guide to visual inspection for defects:

- Hairline cracks
- Quartz pattern irregularity and irregular spots
- Slab-to-slab colour match;
- Thickness tolerance:
    - 1.0mm for 12mm thickness slab.
    - 1.0mm for 20mm thickness slab.
    - 1.5mm for 30mm thickness slab.
- Inconsistent gloss levels.
- Colour consistency within the sheet for plain colours.
- Warpage: 3200mm length direction <= 3.0mm, 1600mm width direction <= 2.0mm;
- Surface side pits/voids/impurities.

Note: *We will not accept any claims for any of the above if the slab is modified in any way whatsoever. The Stonemason is responsible for determining if the slabs are fit for purpose. If they are not, they should be exchanged before the slabs are cut or modified in any way.*

Note: *Length warp should be checked using a full-length straight edge when the slab is placed horizontally, especially, for the jobs which require finished edge thickness is more than slabs original thickness, i.e mitred edges, 40mm laminated edges etc.*

Colour Matching

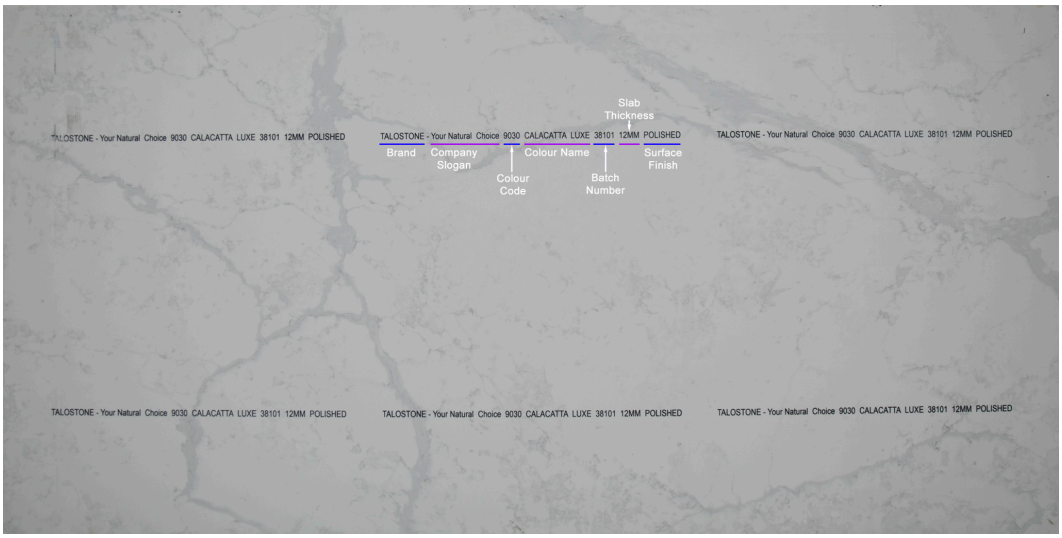
An essential element of slab inspection is checking for colour match. The composition of Talostone® produces slight colour variations between production cycles due to the innate and complex blending of natural minerals – a characteristic inherent in the product. Follow the strict guidelines below:

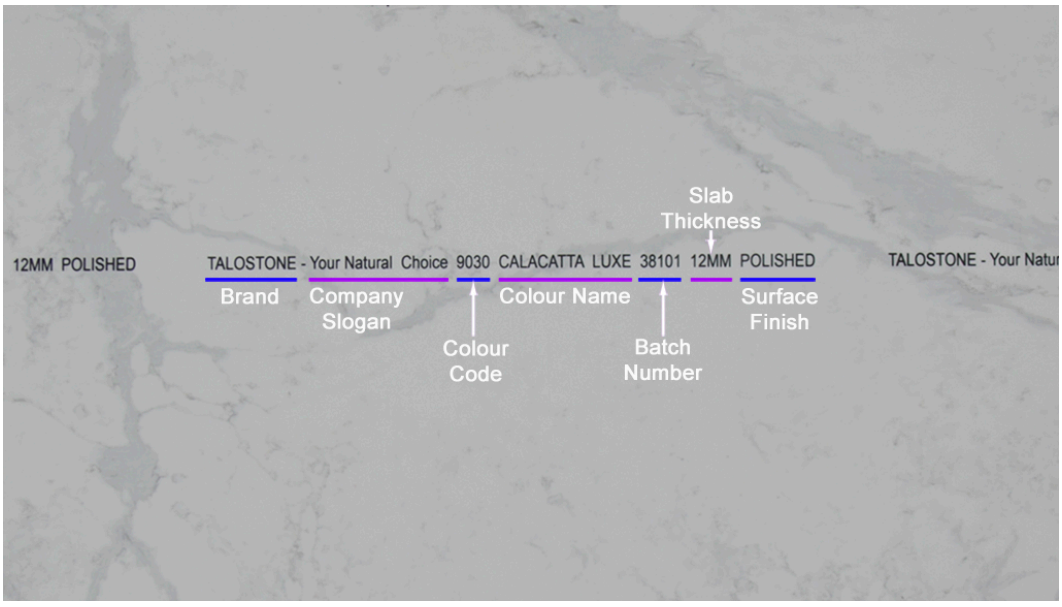
Batch Numbering

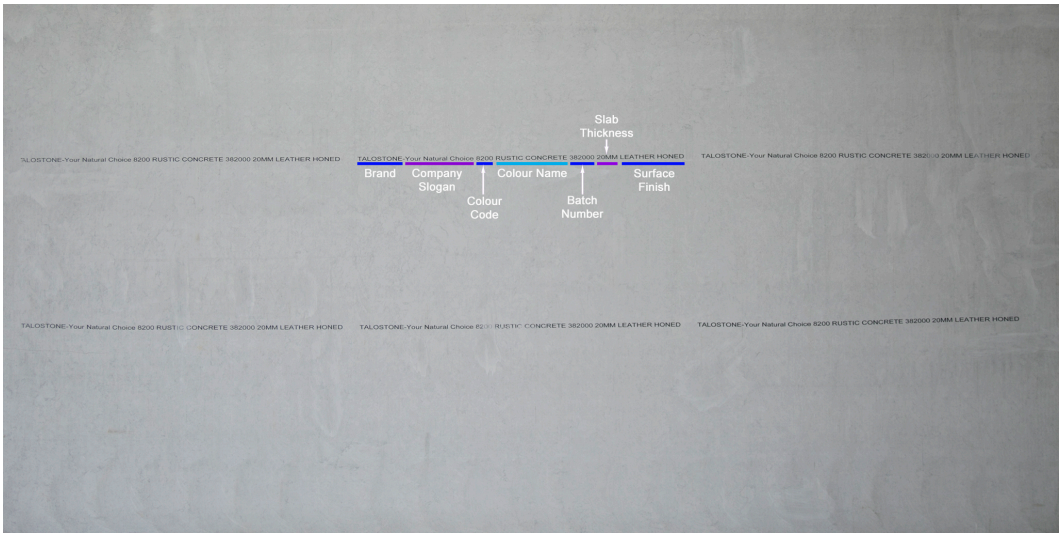
Take all the slabs for the job from the same batch number. This should ensure a colour match, however a visual inspection of the slabs is recommended to confirm consistency in colour shading. Due to the raw materials from natural, each slab is unique and must be checked for shade and quartz distribution. The batch number is on the back of each slab.

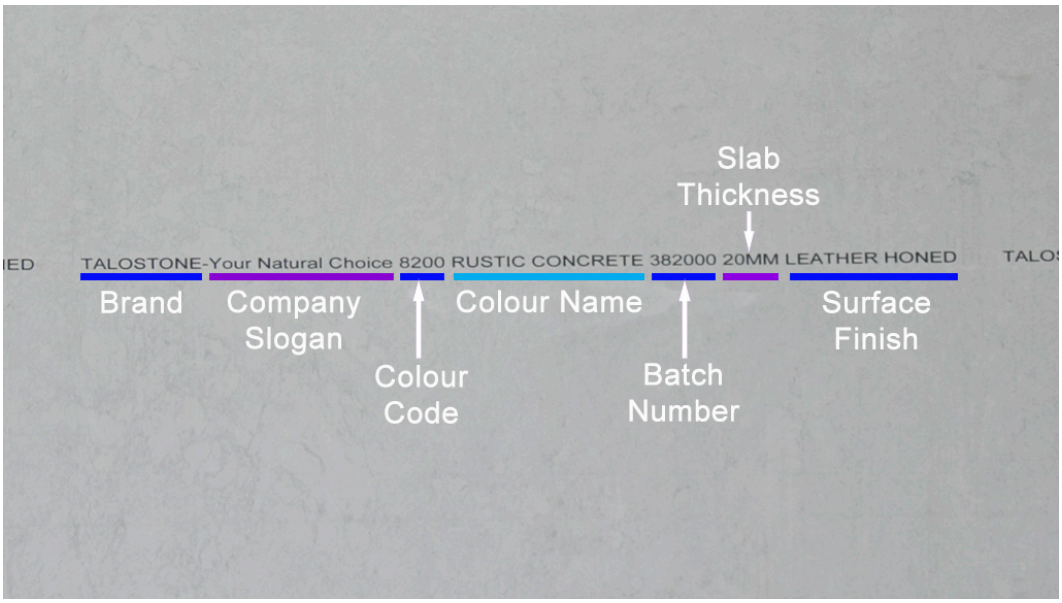
Talostone® brand name, Company slogan, Colour code, Colour name, Batch number, Thickness, Surface finish type, Certificates type (only for selected colours).

Product Information on the back of Polished slabs

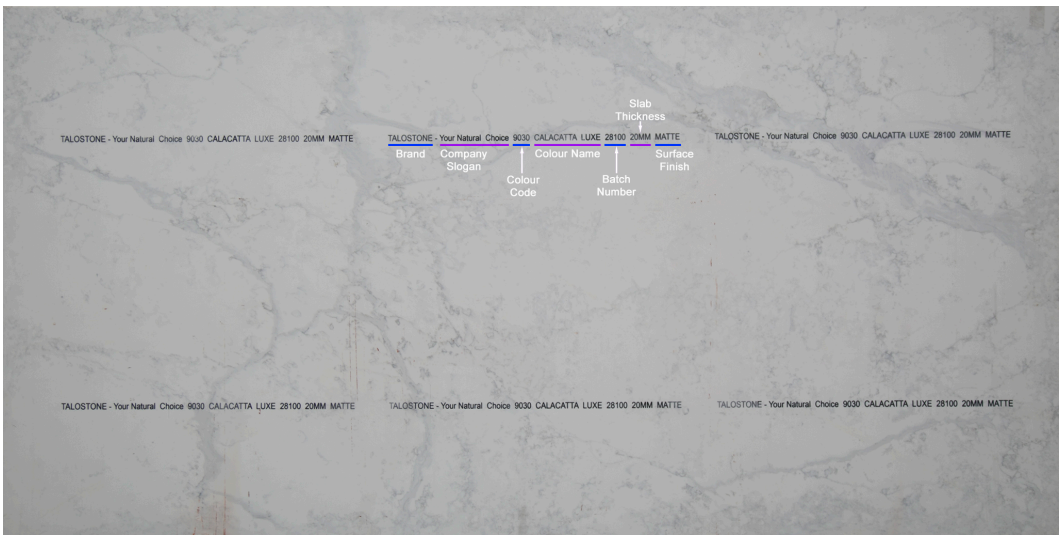








Product Information on the back of Leather Honed slabs



Product Information on the back of Matte Finished slabs

Note: *All batch numbers should be recorded for future reference.*

Always do a visual colour match. Before cutting, visually inspect the slabs to ensure that an acceptable colour match is achieved. When doing a trial colour match, the final visual inspection must be done under the same (similar) lighting conditions that will be found at the job site. We strongly recommend that you do not have slabs from different batch numbers butting up to each other.

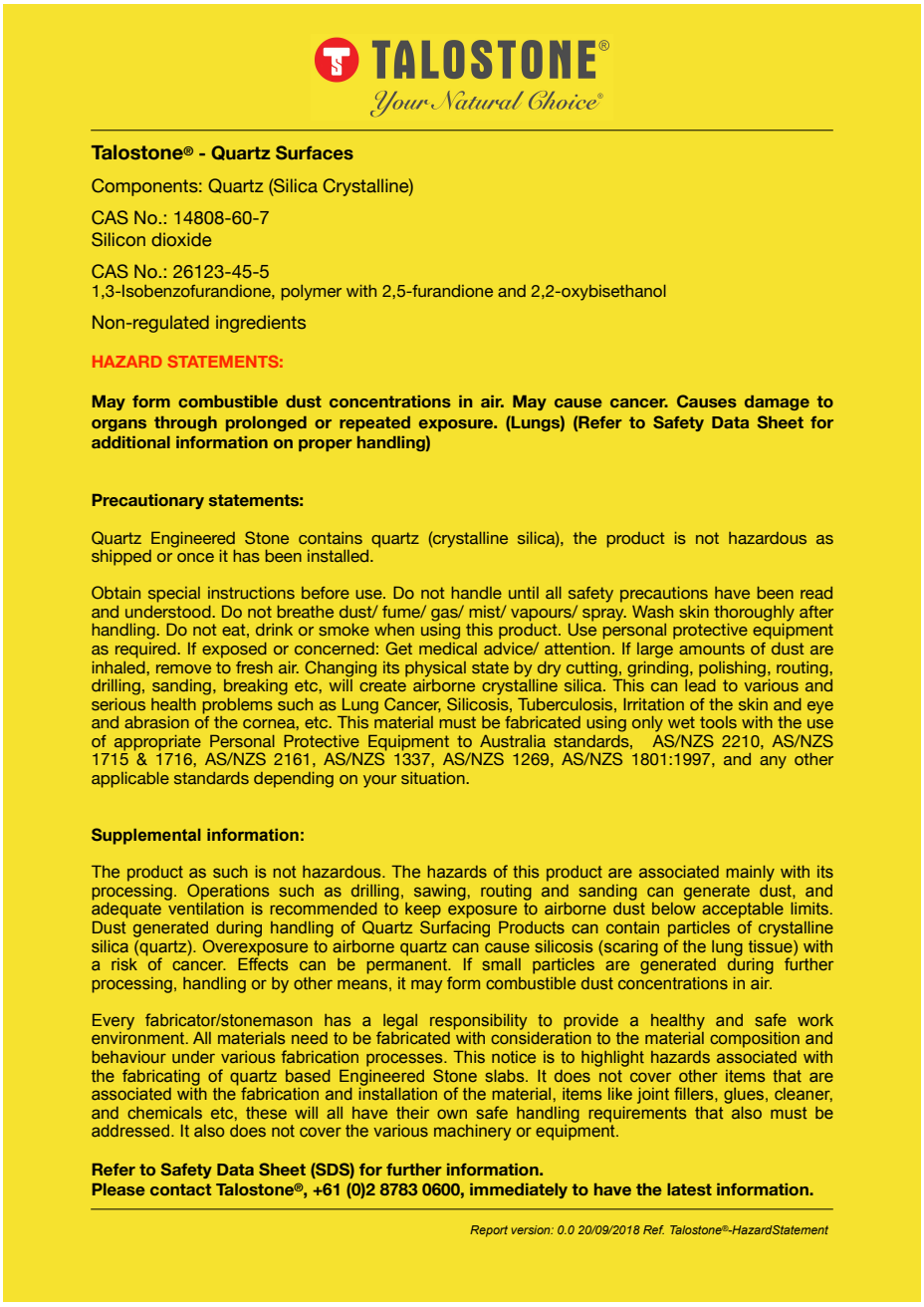
Quartz Pattern Irregularity

The manufacturer of Talostone® has engineered its products to have random distribution throughout the slab. The nature of “random distribution” is such that sometimes particles will congregate in one area or will be segregated in another. If any obvious irregular

distribution of particles is apparent in the slab, the stonemason must determine if the slab is suitable. If the slab is found to be unsuitable, it should be exchanged prior to cutting.

Health & Safety Warning Sticker on slabs

Sticker labels contain important information on OHS for Work Safe and health regulations in Australia. We highly recommend all our stonemason customers to comply to the OHS regulations. Any unsafe dust level above the Australian regulations is prohibited. ANY DRY FABRICATING PROCESS IS FORBIDDEN!



TALOSTONE®
Your Natural Choice®

Talostone® - Quartz Surfaces

Components: Quartz (Silica Crystalline)

CAS No.: 14808-60-7
Silicon dioxide

CAS No.: 26123-45-5
1,3-Isobenzofurandione, polymer with 2,5-furandione and 2,2-oxybisethanol

Non-regulated ingredients

HAZARD STATEMENTS:

May form combustible dust concentrations in air. May cause cancer. Causes damage to organs through prolonged or repeated exposure. (Lungs) (Refer to Safety Data Sheet for additional information on proper handling)

Precautionary statements:

Quartz Engineered Stone contains quartz (crystalline silica), the product is not hazardous as shipped or once it has been installed.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. If exposed or concerned: Get medical advice/ attention. If large amounts of dust are inhaled, remove to fresh air. Changing its physical state by dry cutting, grinding, polishing, routing, drilling, sanding, breaking etc, will create airborne crystalline silica. This can lead to various and serious health problems such as Lung Cancer, Silicosis, Tuberculosis, Irritation of the skin and eye and abrasion of the cornea, etc. This material must be fabricated using only wet tools with the use of appropriate Personal Protective Equipment to Australia standards, AS/NZS 2210, AS/NZS 1715 & 1716, AS/NZS 2161, AS/NZS 1337, AS/NZS 1269, AS/NZS 1801:1997, and any other applicable standards depending on your situation.

Supplemental information:

The product as such is not hazardous. The hazards of this product are associated mainly with its processing. Operations such as drilling, sawing, routing and sanding can generate dust, and adequate ventilation is recommended to keep exposure to airborne dust below acceptable limits. Dust generated during handling of Quartz Surfacing Products can contain particles of crystalline silica (quartz). Overexposure to airborne quartz can cause silicosis (scaring of the lung tissue) with a risk of cancer. Effects can be permanent. If small particles are generated during further processing, handling or by other means, it may form combustible dust concentrations in air.

Every fabricator/stonemason has a legal responsibility to provide a healthy and safe work environment. All materials need to be fabricated with consideration to the material composition and behaviour under various fabrication processes. This notice is to highlight hazards associated with the fabricating of quartz based Engineered Stone slabs. It does not cover other items that are associated with the fabrication and installation of the material, items like joint fillers, glues, cleaner, and chemicals etc, these will all have their own safe handling requirements that also must be addressed. It also does not cover the various machinery or equipment.

Refer to Safety Data Sheet (SDS) for further information.
Please contact Talostone®, +61 (0)2 8783 0600, immediately to have the latest information.

Report version: 0.0 20/09/2018 Ref. Talostone®-HazardStatement

The text reads as below,

Talostone® - Quartz Surfaces

Components: Quartz (Silica Crystalline)

CAS No.: 14808-60-7
Silicon dioxide

CAS No.: 26123-45-5
1,3-Isobenzofurandione, polymer with 2,5-furandione and 2,2-oxybisethanol

Non-regulated ingredients

HAZARD STATEMENTS:

May form combustible dust concentrations in air. May cause cancer. Causes damage to organs through prolonged or repeated exposure. (Lungs) (Refer to Safety Data Sheet for additional information on proper handling)

Precautionary statements:

Quartz Engineered Stone contains quartz (crystalline silica), the product is not hazardous as shipped or once it has been installed.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. If exposed or concerned: Get medical advice/ attention. If large amounts of dust are inhaled, remove to fresh air. Changing its physical state by dry cutting, grinding, polishing, routing, drilling, sanding, breaking etc, will create airborne crystalline silica. This can lead to various and serious health problems such as Lung Cancer, Silicosis, Tuberculosis, Irritation of the skin and eye and abrasion of the cornea, etc. This material must be fabricated using only wet tools with the use of appropriate Personal Protective Equipment to Australia standards, AS/NZS 2210, AS/NZS 1715 & 1716, AS/NZS 2161, AS/NZS 1337, AS/NZS 1269, AS/NZS 1801:1997, and any other applicable standards depending on your situation.

Supplemental information:

The product as such is not hazardous. The hazards of this product are associated mainly with its processing. Operations such as drilling, sawing, routing and sanding can generate dust, and adequate ventilation is recommended to keep exposure to airborne dust below acceptable limits. Dust generated during handling of Quartz Surfacing Products can contain particles of crystalline silica (quartz). Overexposure to airborne quartz can cause silicosis (scaring of the lung tissue) with a risk of cancer. Effects can be permanent. If small particles are generated during further processing, handling or by other means, it may form combustible dust concentrations in air.

Every fabricator/stonemason has a legal responsibility to provide a healthy and safe work environment. All materials need to be fabricated with consideration to the material composition and behaviour under various fabrication processes. This notice is to highlight hazards associated with the fabricating of quartz based Engineered Stone slabs. It does not cover other items that are associated with the fabrication and installation of the material, items like joint fillers, glues, cleaner, and chemicals etc, these will all have their own safe handling requirements that also must be addressed. It also does not cover the various machinery or equipment.

Refer to Safety Data Sheet (SDS) for further information.
Please contact Talostone®, +61 (0)2 8783 0600, immediately to have the latest information.

Respirable Crystalline Silica

Introduction to Guide

Talostone® slabs and fabricated and installed products do not present health risk or hazard when transported, shipped or used by the end consumer. However, during the fabrication and processing, it generates respirable crystalline silica dust. This requires fabrication and processing to be performed under particularly safety conditions.

It is important to note that the guidelines provided in this guide are not intended to replace your local laws and regulations, which should be complied with, as further detailed below.

All licensed and qualified stonemasons are strongly encouraged to provide their workers and customers with the relevant information related to workplace health and safety, particularly in areas with respirable crystalline silica dust.

The objective of this Guide is,

- To provide information about how the risks and health hazards caused by working in an environment with respirable crystalline silica dust; and
- To provide certain information to assist in reducing workers' exposure to respirable crystalline silica dust, including guidance on the safe use of products containing crystalline silica in the workplace and protection that can be used.

What is crystalline silica dust and what health risks will be caused by silica dust?

Silica dust is generated in workplace mechanical processes such as crushing, cutting, drilling, grinding, sawing or polishing of natural stone or man-made products that contain silica. Some dust particles can be so small that they are not visible; these are commonly referred to as respirable particles.

Respirable silica dust particles are small enough to penetrate deep into the lungs and can cause irreversible lung damage.

As a result, unprotected and uncontrolled occupational exposure and inhalation of respirable crystalline silica particles without the safety measures required by law is dangerous to health and may cause severe illnesses such as silicosis, which is characterised by fibrosis of the lungs. Silicosis is a chronic and non reversible disease, which may cause severe physical disabilities and may be fatal. The pathological process of silicosis may cause severe complications such as: lung cancer, tuberculosis and autoimmune diseases such as rheumatoid arthritis. Pre-existing physical disorders may aggravate the adverse effects of exposure to silica dust.

Silicosis is an occupational disease that may affect workers in the stone fabrication industry if they process marble, granite, quartz surfaces and other natural stones without safety measures, which has been recognised for over a century. This disease can affect

the production/ fabrication workers themselves, and any other employee/worker who is present at the fabrication facilities (where there is silica dust) on a regular basis, for example managers and administrative staff.

What diseases can silica dust cause?

If a worker is exposed to and breathes in silica dust they could develop:

- Chronic bronchitis
- Emphysema
- Acute silicosis
    - Can develop after a short exposure to very high levels of silica dust, within a few weeks or years, and causes severe inflammation and an outpouring of protein into the lung
- Accelerated silicosis
    - Can develop after exposures of 3 to 10 years to moderate to high levels of silica dust and causes inflammation, protein in the lung and scarring of the lung (fibrotic nodules)
- Chronic silicosis
    - Can develop after long term exposure to lower levels of silica dust and causes fibrotic nodules and shortness of breath
    - Can include progressive massive fibrosis where the fibrotic nodules in the lung aggregate
- Lung cancer
- Kidney damage, or
- Scleroderma
    - A disease of the connective tissue of the body resulting in the formation of scar tissue in the skin, joints and other organs of the body.

The above section information was sourced from www.safeworkaustralis.gov.au

General Prevention Principles

Silicosis and other diseases associated with silica dust as stated above can be reduced and controlled by following the required safety precautions, including those described below. Such measures include improved work practices (such as working with wet tools, DRY PROCESSING IS PROHIBITED), engineering controls, ventilation and filter systems, respiratory protective equipment and training programmes, as further detailed below and in your local laws and regulations regarding working in environments containing harmful dust. Please note that the recommendations with respect to the work area relate mainly to the production/fabrication facilities, but also to the adjacent offices.

In order to control and reduce/eliminate the health risks associated with crystalline silica, we highly recommend that a silica control programme be implemented in the workplace in accordance with all the applicable laws, regulations, orders and directives. This programme should be reviewed on a regular basis. Furthermore, permissible exposure limits to respirable crystalline silica dust should be met. Exposure limits for quartz, silica sand and cristobalite must meet Safework Australia standard, please refer to www.safeworkaustralia.gov.au for detailed information.

It is important to note that the exposure and personal protection precautions are only necessary for the fabrication of Talostone® products (cutting, sawing, polishing etc.), due to the dust that may be generated in the process, and not from the slab as a product.

The employer is responsible for providing his workers with all the information, tools and safety measures required in order to protect them from the risks of exposure to silica dust. The workers are responsible for fully implementing the safety instructions. Access to the work area should be restricted to authorised employees only. By a joint effort of the employer and workers, the workplace can become a healthy and safe environment for everyone.

NO DRY CUTTING at any circumstance!

The best protection is to avoid exposure to dry silica. Therefore, where possible, implement fabrication techniques in which all cutting, grinding and shaping etc fabricating process is performed wet.

- Work on wet tools and cutting machines as they help to prevent the release of silica dust. This applies to all tools.
- Ensure safety when working with wet tools, please consult with your wet tool suppliers.
- Design and use a good and efficient water system.
- Clean and maintain all drainage systems when using water sprays and hoses.

- Wet hosing rather than compressed air should be used for clean up and in no circumstances should dust be swept up with a broom.

Ventilation and Filtration Systems

Engineering control is critical as well. It is to use ventilation and filtration systems specifically designed to collect respirable particles in the dust, as detailed below.

Implement filter systems that include the following elements:

- Professional extraction hoods
- Enclosure for collecting and containing pollutants
- Ducts for pollutants removal
- Filters positioned between the hood and the fan
- Fans for moving air flow and releasing clean air outside the workplace

Ventilation

Please visit or speak to your local authorities to get professional help and detailed requirements for this. Our further recommendations regarding proper ventilation include but not limited to the following:

- Ensure that the workplace (including the fabrication facilities, as well as the adjacent offices) have complete and effective ventilation.
- Work with qualified engineers to make sure your ventilation meet requirement.
- Operate local exhaust ventilation at the dust source in order to capture the dust at highest level.
- Connect local exhaust ventilation to a dust extraction unit such as a bag filter/cyclone.
- Maintain local exhaust ventilation in good working order under your supplier instructions. Replace and maintain filters or other parts according to supplier’s instructions.
- Keep the dust source as tightly closed as possible to prevent dust dispersal.
- Ensure a constant supply of fresh air into the work area to replace extracted air.
- Keep air ducts as short as possible and prevent employees from being exposed to local exhaust ventilation.
- Position the work area as far away as possible from doors, windows and passages in order to stop wind and draft from spreading the dust and hindering local exhaust ventilation.

We advise that you consult with a ventilation expert or engineer in implementing certain of the foregoing recommendations, such as work area positioning and air ducts length.

Dust Monitoring & Supervision

Dust monitoring and supervision include the following:

- Consult your local regulations and laws as to the Permissible Exposure Limit (PEL) and/or Threshold Limit Value (TLV) limits for the legal permitted level of exposure to the different types of respirable silica dust.
- Perform risk assessment to determine whether existing dust controls are sufficient.
- Work with designated experts to create appropriate dust monitoring systems and consult with industrial hygiene professionals regarding dust sampling strategy.
- It is extremely important that all dust extraction emissions comply with local environmental rules.
- Keep complete records of dust monitoring campaigns and implement a quality system accordingly and perform regular checks to ensure that the dust intake, filtration and expulsion systems are functioning correctly.
- Ensure that settled dust and polluted air cannot be dispersed or spread to clean areas or outside the work area.
- Signs of “Hazardous Dust” in all areas with hazardous dust.
- Create and enforce rules for all employees to wear protective respiratory equipment in areas with hazardous dust.

Personal Protective Equipment (PPE)

If dust production is not prevented by using water based machinery, workers must wear protective equipment which should be used and replaced in accordance with the manufacturer’s instructions. In cases where exposure is particularly heavy, industrial respirators should be used and comprehensive training provided.

- Personal Protective Equipment (PPE) is mandatory in workplaces where risks exist. This should be clearly marked with appropriate signage.
- PPE should comply with your local legal requirements; be designed and manufactured according to safety and health standards; and be used and replaced in accordance with the manufacturer’s instructions.
- Respiratory protection against silica dust should be P3 classification.

- Employees should receive training on the use and maintenance of the PPE, and should check efficacy of all respiratory protection equipment before use.
- Ensure that all employees wear appropriate PPE and keep records of all PPE in use pursuant to applicable law.
- Provide employees who work with silica dust with overalls that prevent dust absorption.

Hygiene

Personnel hygiene is another important factor in health protection, and includes the following:

- Provide bathroom facilities in the plant with toilets, showers, wash basins and individual lockers for storing changes of clothing. Make two checkrooms available to all plant employees: one in which they change from home clothes into clean work clothes and store their home clothes during working hours; and another in which they change out of work clothes at the end of a working day before showering and changing back into home clothes.
- Employees should wear only designated work apparel at the worksite.
- Employees should leave their work clothes and shoes in the workplace and never remove them from the plant.
- Launder all employees' working clothes and provide them with clean clothes on daily basis.
- Provide explanations on the importance of separating work clothes from clean clothes.
- Employees should wash their hands and faces, and change clothes before eating.
- Permit eating, drinking and smoking only in designated areas that are not exposed to hazardous dust.

Cleaning

- Clean the workplace, floors and all exposed surfaces on a daily basis.
- Make sure the work area is clean on a daily basis.
- Cleaning all equipment and systems on regular basis.
- Employ both wet and vacuum cleaning methods.
- Do not sweep with a dry broom, brush or compressed air.
- Do not clean work clothes, machines or floors with compressed air.

Administration, Regulation & Maintenance

- Maintain all equipment in good working order.
- Do not make changes to any working systems without supplier approval.
- Keep instructions and diagram of installed systems in a safe place for reference.
- Ensure that regular checks are performed on inlet airflows, duct air speed and filter pressure index on ventilation systems.
- Check all systems at regular basis or according to supplier instructions.
- Keep inspection reports for a period of time that complies with local laws.

During Installing of Talostone® Surfaces

All surfaces should be fabricated in the plant and not at the end user's location in order to protect installers and people on site.

Training Employees on Safety & Hygiene Issues

Employees who are involved in and committed to the safety programme are most likely to comply with them. Employee training may include the following:

- Create and implement clear guidelines for safe working procedures and good practices in your workplace.
- New employees must be trained for health safety and hygiene training.
- Continue delivering mandatory training sessions to existing employees on an ongoing basis in order to update and review their knowledge of your health and safety procedures.
- Regularly review and update your safety and hygiene procedures according to your local regulations, government, and law requirement.
- Provide employees with current data on health effects associated with respirable crystalline silica dust.
- Provide training for the use of respiratory protective equipment or other Personal Protective Equipment and keep comprehensive records of all training provided to employees and record employees' attendance at training sessions.
- Assess employees' knowledge after each training session in order to verify that they understand your plant's safety procedures.
- Provide clear data about the risks associated with Talostone fabrication tasks.

Health Surveillance

Health surveillance should be implemented based on your local rules and regulations, which may include the following:

- Implement a health surveillance programme for employees who are exposed to respirable crystalline silica, including medical testing and other tests as required by local regulations.
- Keep records following the termination of each employee's employment for the amount of time required by local regulation. Keep records of the protocol of all tasks that expose workers to respirable crystalline silica.
- If an employee is overexposed to respirable crystalline silica, he should be provided with details of his monitoring result.
- Persons under the age of 18 should not be employed in any role in which they are exposed to silica dust.

Other Information & Disclaimers

The information contained in this Guide is, according to the best of our knowledge, current and accurate. However, it is only a summary; it is not possible in this short document to comprehensively cover all the topics mentioned, nor is it possible to cover in detail all areas of concern regarding crystalline silica dust in the workplace.

Furthermore, any recommendations or suggestions made here are general and do not take into account the specific conditions that exist at each fabrication site. In addition, none of the content in this guide may be construed as a recommendation for using any product or tool in violation of any laws, safety practices or other applicable terms.

We strongly recommend that you also consult with occupational health professionals and other experts concerning all matters regarding control of respirable crystalline silica in each specific workplace. We also note that the laws and regulations regarding silica dust differ from state to state, and we recommend that you check and observe your local regulations and legislation regarding working in environments containing harmful dust.

In any case where these guidelines contradict your local regulations, your local regulations shall take precedence.

None of the information contained in this guide creates a contractual relationship between Talostone® and any fabricator.

Information on occupational safety and health administration appears, among other sources. **Safework Australia (https://www.safeworkaustralia.gov.au/); Occupational Health & Safety Australia (http://www.ohs.net.au/)**

Fabrication Instructions

Tools and Safety Equipment

It is critically important that all licensed stonemasons wishing to fabricate Talostone® products have the proper tools and safety equipment to produce a quality finished product safely and efficiently. Below is a list of tools and safety equipment that are either essential or recommended to meet this objective.

Basic Tools

- Bridge saw
- Electric/pneumatic polisher (variable speed preferred)
- Diamond grinding wheel
- Diamond polishing pad
- Grinding stone
- Core bits
- Diamond contour blade
- Wet profiling machine (edge router)
- Stone carts/dollies
- A-Frame/storage racks
- Fabrication stands
- Air compressor
- Seaming clamps
- Water source

Advanced Tools

- Water jet
- CNC

Basic Safety Equipment

- First-Aid kit
- Ear plugs
- Safety glasses and shoes
- Work gloves & Aprons
- Premium quality masks to protect your health

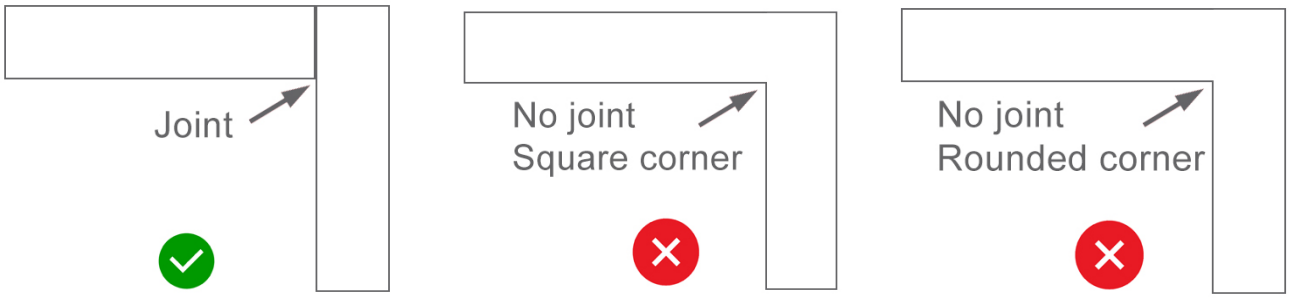
Basic Fabrication Guidelines

The following guidelines should be followed to ensure a high quality product:

- ANY DRY FABRICATING PROCESS IS FORBIDDEN!
- To avoid unsafe lever of silica dust and overheating the slab, only water-cooled tools should be used for cutting, drilling, and polishing Talostone® slabs.
- Do not change the original surface finish of the slabs by re-polishing, honing, sealing, or otherwise altering the factory finish.
- Do not cut square corners (cross cut) as this will create stress points in the slab and may result in cracking.
- When cutting an inside corner, always use a core bit to avoid damaging the corner area with the cutting disc. Damage to the radius area will create a stress point.
- Any internal angled corner must be radiused. Cut with the saw up to the joint of the drilled hole, leaving the drilled hole intact.
- Avoid dry grinding/polishing of the corner since unsafe lever of silica dust generated and overheating the area may result in a crack.

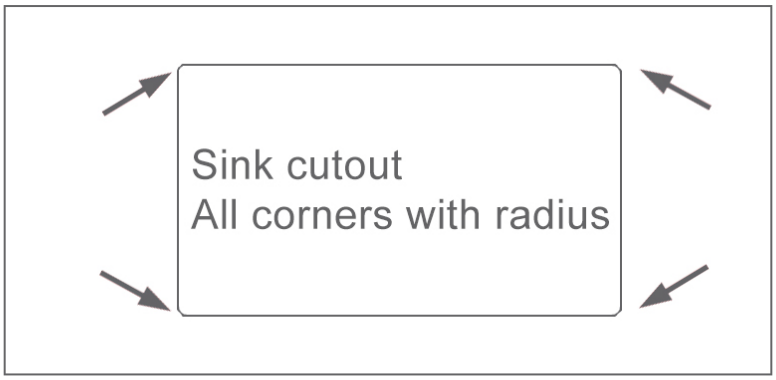
Inside Corners

In the case of an angular shaped kitchen (L- or U-shaped), the surfaces of the countertop should be fabricated from a single slab with a join on inside corner between slab pieces. Create a join for every change in direction of the surface.



Cutouts

It is generally necessary to install accessories, such as sinks or cooktops, on benchtops. For all the cutout, please fabricate a minimum radius of 15 mm for all corners in cutouts. The larger the radius, the stronger the corner.



Under mount sink

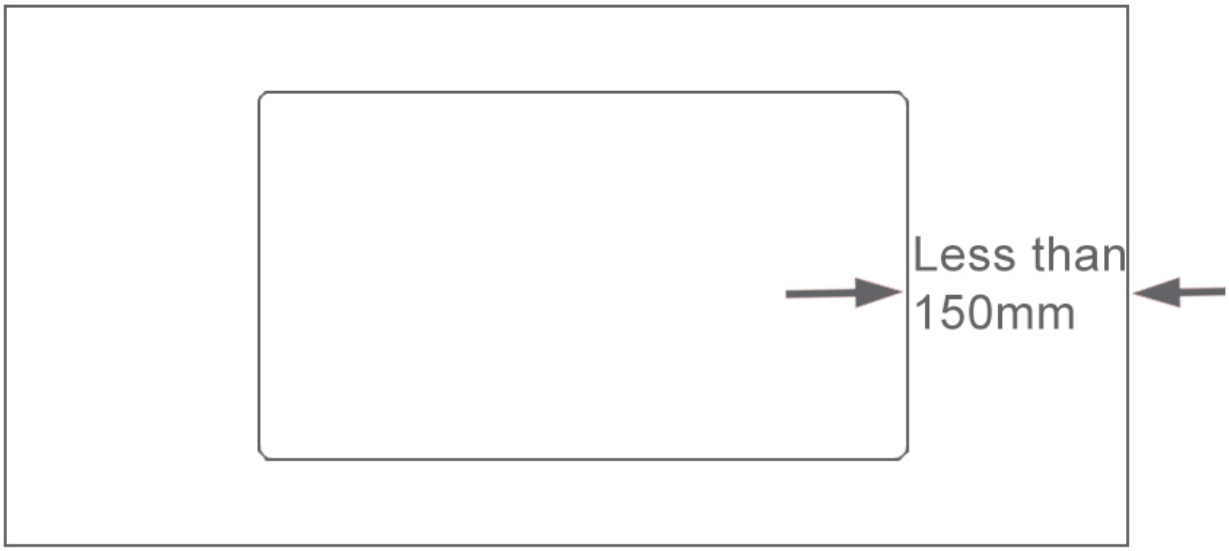
Make sure the cutout is slightly smaller than the accessory. Then the join between the accessory and the surface is not visible. Round or bevel the edge for the cutout. The larger the edge profile the greater the impact resistance of the edge, Talostone® recommends the minimum radius of 6mm.

Dropping sink

Fabricate the cutout slightly bigger than the accessory sink wall to leave a space between the sink wall and the cutout. Please leave the cutout edges un-polished.

Note: please follow any instructions and recommendations provided by the sink manufacturer.

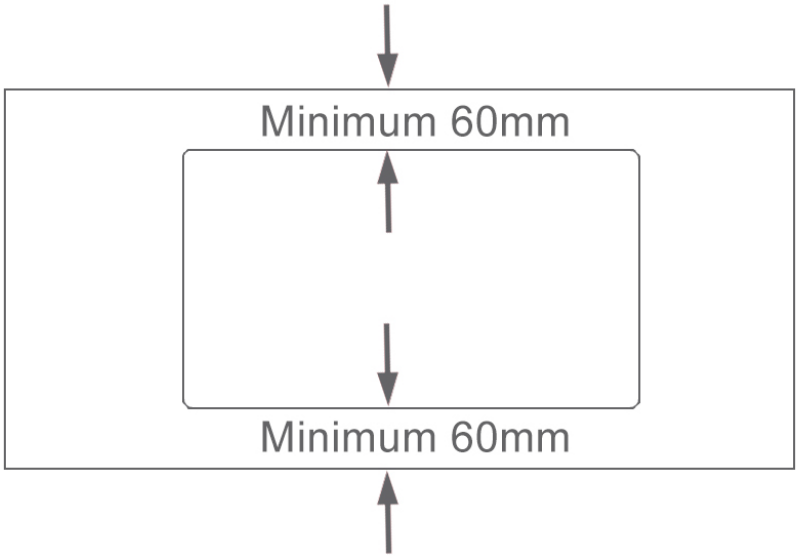
If the distance between the cutout and a joint is less than 150mm, the area needs to be supported. This can be achieved by ensuring that all joints are placed at the junction of the base cabinets or a solid slat be fitted under the joint.



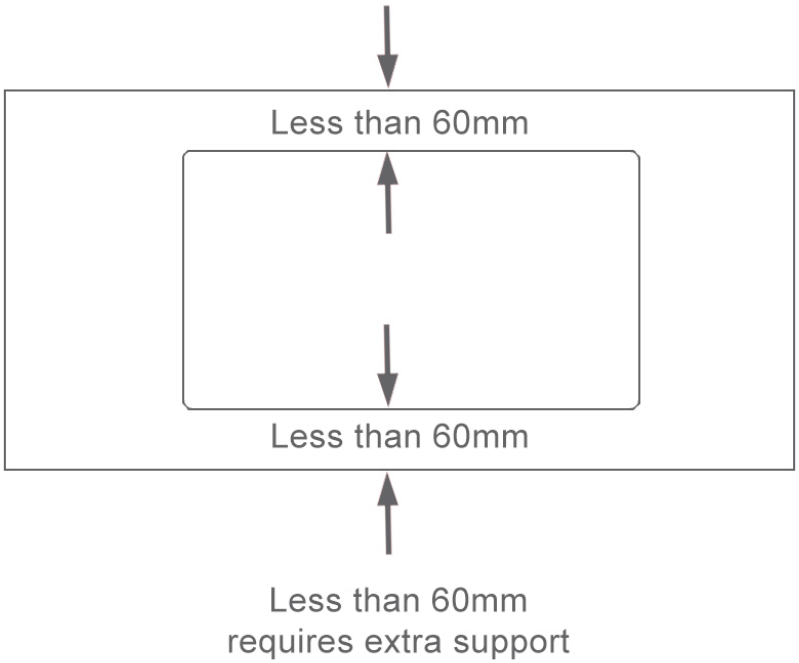
Less than 150mm
requires extra support

Cross cutting should be avoided. When preparing a cutout always use a core bit. Avoid damaging the drill area with a cutting disk.

The distance between a cutout and an edge or join must be no less than 60 mm. The greater the distance, the stronger the area.



If a large cutout will leave front and back rails of less than 60 mm, important consideration should be given to making these rails from separate pieces to avoid problems with cracking. Please advise the cabinet manufacturer and/or customer that separate rails should be used and there is more possibilities for the rails going cracking with less than 60mm.



Sink drainage grooves

Talostone® products are perfect for drainage grooves, especially, on the Marble range and Premium Marble range colours as the veins are inside the thickness. After the drainage grooves are done, the detailed veins can still be appeared and this create great details for your benchtops design.

Note: The drainage grooves surface may not be able to be exactly the same finish as the rest of the top due to the different machine the stonemason use and Talostone® original polishing system.

If the drainage grooves are too deep, will seriously affect the strength of the benchtop around that area. For 20mm thick slabs, we recommend the maximum depth of the drainage grooves is 4mm.

This may require additional support to be placed beneath the area to ensure that there are no failures in the future.

Drainage grooves could pose cleaning issues for the home owner. Drainage grooves may need to be cleaned with a soft bristle brush.

The quality and performance of the sink drainer is the responsibility of the stonemason.

Joints

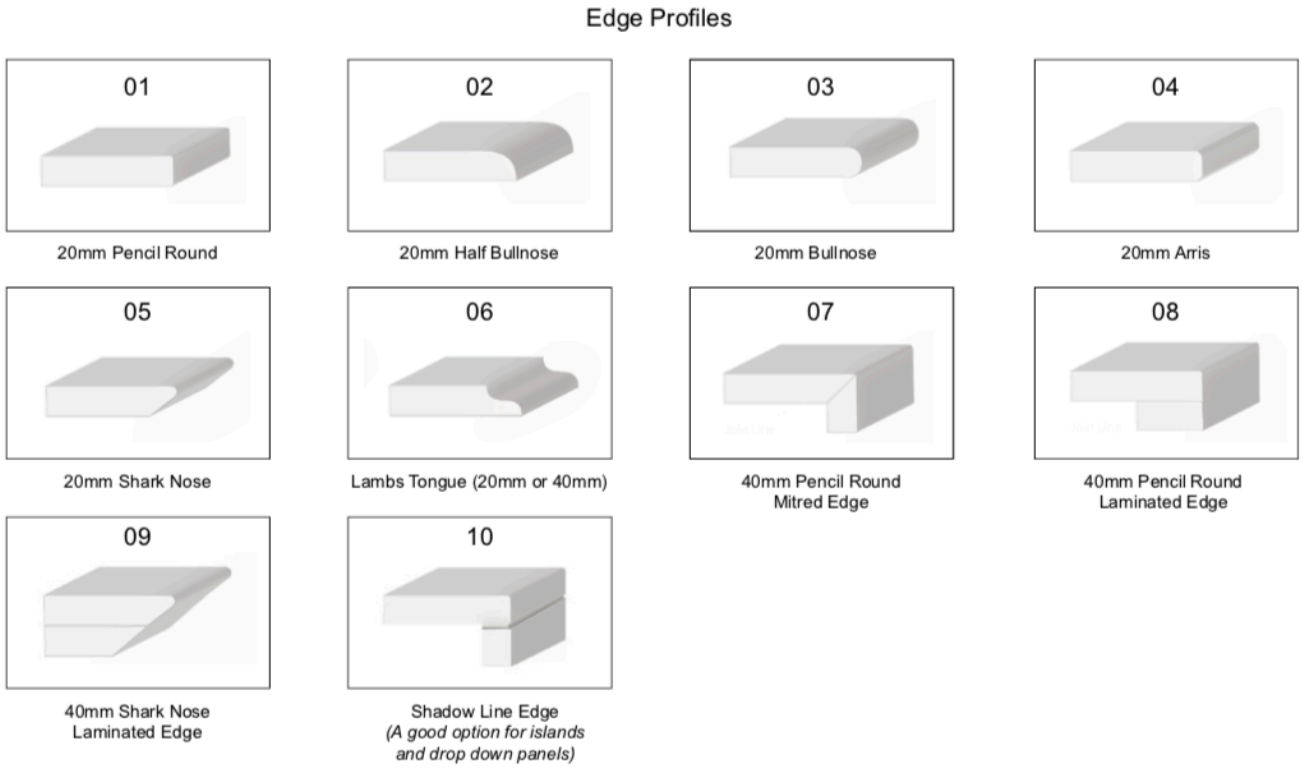
• If a straight seam is not used, any internal angled corner in the seam must have a 9mm radius.

• All seams should be made level by adjusting the material before adhesive sets.

• Do not surface polish seams to make them even/level.

• Use a state-of-the-art seam setter tool to make seams as narrow and inconspicuous as possible. Seams should not be more than 2.0mm wide.

Edges



All exposed edges should be fabricated to the same finish as the surface.

Do not create square edges. The top and bottom of edges must be rounded or beveled.

All edges should have a minimum radius on any edge profile of 3mm

Note: *Talostone® does not recommend 45˚ mitred edges for any drop-down panels as this will require polishing on job site. This will result of un-safe level of the silica dust level and cause any health risk to job site people. But 45˚ mitred edges are recommend for normal edges as stonemasons get this done at factory workshop with wet polisher.*

Chiseled or hammered edges are not approved edge details.

Polishing Edge Profiles

Polishing any Talostone® edge profile should be done in a progressive manner using only granite or marble diamond polishing pads in stonemason workshop where complies to Safework Australia and OHS Australia standards. Talostone® recommends the use of premium quality pads and use of plenty of water for best polishing results. The quality of the pads being used will affect the time required to complete polishing and the quality of the finish. Polishing Talostone® should be done by starting with a surface that is smooth, clean, and free from any residual adhesive.

Note: Care must be taken not to over-polish edges in excess of the factory surface polish.

Recommended polishing process for Talostone®:

- Honed finish 100, 200, 400-grit diamond pads.
- Polished finish 100, 200, 400, 500–800, 1500–2000, 2000–2300-grit diamond pads.

These recommendations are a guideline for achieving a polish equal to the factory surface polish. The type of tools, diamond pads, and fabrication techniques will affect actual polishing results. When polishing the edge profile, use water-cooled tools. Dry-polishing of the edge profile is PROHIBITED and may cause un-acceptable of silica dust level, overheating, leaving the edge prone to chipping. Excessive heat undermines the physical structure of the slab, and although not visible to the naked eye, micro-fissures are formed, leading to chipping upon impact, dis-coloration and an uneven polish.

- Use lower RPM to be used on polishers when using 1000-grit or higher diamond polishing pads.
- Do not use stone “buff” pads on Talostone®.
- Do not over-polish edge details in excess of the factory surface polish.

Laminated edges

Lamination is the process of gluing a strip of Talostone along the bottom edge of another piece of Talostone in order to create the look of a thicker slab. This process is more complex and time consuming than fabricating single thickness edges and it will result more labour involved in from a stonemason; however, it produces a richer aesthetic effect.

Cut lamination strips from the same slab as the benchtop, and wherever possible from the same saw cut, to ensure a colour match. If there is no enough to cut the strips from the same slab, stonemasons need to make sure the strips from different slabs are same colour and similar quart grain distribution by a few trial laminated edges. Even the same batch slabs, the inside quartz distribution may vary because of the nature of the manufacturing process. If the expected outcomes can not be achieved, stonemasons need to advise their customers and change the laminated edge profiles to mitred edge profiles.

Talostone® do not take any responsibility for the colour difference of 40mm laminated edge profiles and it's not covered by Talostone® warranty policy.

Do not join laminations strips, each lamination strip should be the same length as the edge to which it will be glued.

Mitred Edges

- We do not recommend mitred edges for any drop-down panels which need to be done on job site as this will cause un-safe level of silica dust on job site. We only recommend mitred edges for those can be done at stonemason's factories and no extra polishing of the edges required on job site. We strongly recommend mitred edge with shadow line for any drop-dow panels, i.e island bench waterfalls, bench waterfalls, etc.

- Mitred edges should be done at a 45˚ angle to ensure maximum strength. The joint should be clean, flush, and parallel.

- Mitred edges have the greatest area of weakness and are most prone to chipping. (Our recommended minimum edge profile is a 3.0mm bevel. Our preferred minimum edge profile is a 3.0-4.0mm Pencil Round edge.)

- Chipping is most prevalent where the application of the adhesive is not evenly distributed throughout the joint.
  • Do not cut edges at less than 45˚ as this makes the edge prone to physical damage such as chipping.
  • Incorrect angles restrict the type of edge that can be produced, since the larger the edge profile, the larger the joint that is visible.

- Ensure that the adhesive is thoroughly distributed throughout the joint for maximum strength.

Note: Chipping of the benchtop edge in this situation is not covered by our warranty.

Recommended procedure for Leather Honed or Matte Finish edges

The natural, unique look of Leather Honed and Matte finish combines a low level of gloss, making it beautiful to both see and touch. Due to the innovative technology used to create lightly textured surfaces, we recommend the following guidelines below to ensure the highest quality workmanship and an optimal result when polishing this type of finish edges.

We highly recommend that a mitred edge be used for this material, as it will achieve the best textured appearance. However if any other edge is demanded, special fabrication and brushes will be required for the edge detail. Talostone® Leather Honed finish is ONLY allowed to be fabricated in mitred edges to have the original surface finish as the benchtops.

1. Complete cutting the surface into the required pieces/sections, before proceeding with polishing.
2. Using clamps, attach all pieces required for the final design to a suitable work surface.
3. Cut or shape the required edge profile.
4. Smooth and polish the edge shape, following standard polishing procedures and according to regular levels – up to a maximum of 100–120 grain, using a generous amount of water.
5. Polishing a texture finish edge will require approximately the same amount of time as polishing a regular edge.
6. Use a suitable manual, electric or pneumatic angle grinder – with a low RPM of 600–1200; connect it to a source of water and attach a 60 grain special texture brush.
7. Continue until the edge attains a homogeneous finish.
8. Change the brush to a 120 grain and polish until there are no visible signs remaining of the 60 grain brush.
9. Repeat the above with 400, 800 and 1600 grain brushes or until the edge is consistent with surface finish.

Note: Only Certified Stonemasons with the ability to do these types of edges can fabricate these edges if the required edge profiles are not mitred edges. All edge polishing process must with a generous amount of water to minimise the dust level under local and national law and regulations.

Protective Wear

Safety Glasses, Safety Gloves, Safety Shoes, Premium Quality Masks etc

Wearing an approved face mask is recommended when fabricating Talostone® (refer to SDS Page 50-60). Engineered stone like the other earth materials contains contains silica, which is dangerous when inhaled the silica dusts. Always cut and polish Talostone® with wet diamond tools and take appropriate measures to provide efficient ventilation in the work area.

Transportation

Packing for Transport

- Stone slabs and fabricated benchtop sections are normally heavy and fragile. Consideration must be given to portability and site access when planning and packing for transport.
- Brace all cutouts to avoid flexing of the seams and corners.
- Transport Talostone® with sections touching face-to-face or back-to-back. Do not allow any parts to slide around during transportation. Make sure the face is always protected by Talostone® protective films and not touching metal, the back of another slab, etc.

Racking for Transport

- Time and skill has been spent in the factory manufacturing a first-class product. Good racking is essential for getting the product to the site in good condition.
- Many rack designs have been made for stone slab transportation devices. Some prefer to have a removable “A” frame that they can hoist off the delivery vehicle. (Insert an image)
- The slabs should be securely fastened to the rack by straps. Care should be taken to protect the straps from being damaged or cut by the edge of the slabs.

- At least two people should be taken on the delivery vehicle to get the product onto the site.
- All racking should have a protective layer between the rack and Talostone® material. This will help to prevent scratching or other surface damage during storage or transit.

Installation Instructions

Preparing Base Units/Cabinets

- Ensure that cabinets are complete and satisfactorily installed. Verify that all cabinets are level. The tops of the cabinets must be flat. The cabinets should be affixed to each other and then secured to the back wall. In the case of a dishwasher, make sure that the surrounds of the opening of the counter will have sufficient support. The front edge of any countertop over a dishwasher should always be supported with material matching the installed cabinets to better match the kitchen.

NOTE: If cabinets do not meet the minimum standards, the installer must notify the homeowner or project manager present at the job site prior to installation of tops.

- Fabricated Talostone® surfaces are installed on top of cabinets and are not attached to the wall.
- Before installing Talostone® benchtops, it is extremely important to make sure that cabinets are fully completed, stable, levelled and suitable for bearing Talostone® benchtops weights.
- Talostone® surfaces must be supported on a strong perimeter frame or on a full deck support.
- It is essential that the benchtop is sufficiently supported in areas of joins, cutouts and over spaces for appliances such as dishwashers, ovens, washing machines, etc.
- For cutouts longer than 600 mm, provide firm side-to-side support underneath.
- For the areas above appliances which generate heat, it is necessary to make sure that the heat is not going to damage Talostone® benchtops by attaching a board between the cabinet tops on both sides of under-counter appliances that generate heat.
- For Talostone® 12mm surfaces, the fabricated benchtops must be supported by a flat and same size of solid surfaces under the stone benchtops.

Cabinet Support

It is extremely important that plinths provide a strong and stable base for the cabinets and are considered best practice. It is essential that they are properly levelled and secured to the floor and wall.

Cabinets should be placed and fixed securely to ensure that there is no movement under load. Also ensure that you have a level surface to place the tops on.

Under-bench Appliances

Under-bench appliances such as ovens, dishwashers and microwaves generate heat in a very confined area.

In order to protect the benchtops from this, we do recommend that a solid top is installed above these appliances made from the same material as the cabinet carcasses.

This will provide both support and insulation for the benchtops.

Cooktop Locations

Avoid having the cooktop located above drawer units. This restricts the use of vertical rails and weakens the support structure under the benchtop.

Benchtops

Preparation for Installation

- Place all the fabricated pieces of the surface in their final position on the cabinets without adhesive. Check that all the pieces are the correct size, shape and direction in relation to the cabinets and the walls.
- Check that all exposed edges and corners are fabricated and rounded as required.
- Check that the surface is straight and level with a spirit level and long ruler.
- Leave a space of 1 mm per linear metre between straight stretches of the surface and each wall for expansion and contraction, but not less than 3 mm in any event.
- Perform a final visual inspection to ensure that the surface is to your satisfaction.

Joins

- Part the fabricated pieces of surface slightly at the join.
- Place a layer of paper on the cabinet underneath the join in order to prevent the adhesive from sticking the surface to the cabinet.

- Prepare a suitable colour-matched polyester resin adhesive.
  If necessary, mix the adhesive with pigments with a stainless steel or plastic spatula until achieving the required shade.
  Use a plastic spatula for mixing light colours. Ensure that the join is clean of debris.
- Spread a generous amount of the adhesive on both sides of the joint.
- Ensure that the groove in the middle of the join is filled with adhesive.
- Close, secure and straighten the join with clamps or a professional joining clamp to create a smooth, flush surface.
- After the adhesive is completely dry, remove the clamps.
- Remove any excess adhesive with a scraper.
- Perform final cleaning with alcohol on a clean white cloth.
  Do not polish joins on Talostone surfaces.

Adhesive Application

- To fix the tops to the carcasses, apply enough flexible silicone adhesive to secure the tops.
- Do not over glue the tops, as even silicone, when used in abundance, is extremely strong and will restrict the slabs from moving due to expansion and contraction.
- Use the minimum amount required to do the job.
- Large pieces will not move easily due to their weight, as such minimal adhesive is required. Smaller pieces will need extra adhesive so they are not dislodged.
- Areas such as island bars and breakfast bars with overhangs should be more securely fixed.

Sealing Between the Surface and the Wall

- Clean the space between the surface and the wall.
- Fill the space generously with a flexible adhesive such as neutral 100% neutral cure silicone.
- The silicone adhesive prevents water from entering the cabinet.
- For visible joins between Talostone® surface and a different material, use coloured silicone.

- If the cabinets are supported on adjustable legs, ensure that all legs are evenly tensioned to ensure stability.

Overhangs

An overhang is a surface that is not directly supported by a construction underneath, i.e, a surface that extends past the edge of the supporting cabinet for use as a benchtop.

Extra strength can be provided by laminating the edge of the overhang and attaching another slab of the same thickness underneath. In this case, the bottom slab is attached back to back underneath the surface so that the polished surface is exposed underneath the slab.

The permitted overhang dimension must be determined by a professional. It is dependent on a number of factors, such as:

- The complete length to width ratio of the surface relative to the length and width ratio of the overhang.
- Whether the overhang is supported on one or more sides by a wall or other supporting fixture.

The table below provides approximate guidelines for support required for overhangs.

Supports are dependent on the application. If the overhangs will be subjected to high loads, then supports should be used regardless of the recommendations below.

20 mm thickness slabs(or 40 mm laminated)	30 mm thickness slabs	Support required
Less than 300 mm overhang	Less than 400 mm overhang	No additional support required
300-500 mm	400-600 mm	Support brackets at 600 mm intervals
Greater than 500 mm	Greater than 600 mm	Legs, columns or panels

After Installation

Once installation is complete, ensure that the slab surface is clean and the work area tidy.

If further construction work is to be performed at the job site after the installation of the surface is complete, ensure that the surface is properly protected by covering the entire top with Talostone® protective films which is available from Talostone®.

Formally advise the customer that any following tradesmen must NOT use the new countertop as a work bench, step or standing platform.

Talostone® highly recommends that the customer confirm in writing their satisfaction with the material and workmanship at the end of the job to cover the fabricator against damage caused by others.

Make sure to leave the information of Talostone® 15-Year Limited Warranty and Care & Maintenance details for the customer. *https://talostone.com.au/support/*

Non-Critical Light

In the Home or on Site

Slabs are to be viewed from a normal viewing position. A normal viewing position is looking at the benchtops at a distance of 600mm with the surface of the slabs illuminated by non-critical light.

Non-critical light means the light that strikes the surface of the slabs is diffused and is not glancing or parallel to that surface. Slight variations in the colour of the slabs do not constitute a defect.

This is site specific, so it could be an issue in a highly lit environment, but not visible in another. Check reflectivity at the factory and on site before fixing the tops to the cabinets.

Finished Talostone® benchtop Support

Below are some guidelines on installation, material, and type of supports:

- Talostone® must be supported on a strong perimeter frame.
- Front-to-back support within the cabinet should be provided every 600mm. Plan for front-to-back support strips 40mm–100mm wide to coincide with cutouts and periodic support. **Support must be provided under all countertop joints.**

Note: Support is required across the top of a dishwasher space and over an under-counter oven.

- Do not undercut corners.
- Allow room for expansion between benchtops and walls.
- All cabinets must be levelled and supported prior to the installation of the tops.
- If the cabinets are on adjustable legs, please ensure that all legs are evenly tensioned to prevent any movement.

Sinks and Basins For all sink or basin installations, whether they are drop-in or under-mount, we recommend that you follow the sink manufacturers' recommendations:

- For cutouts, follow the recommendations on Page 11 of this manual. For under-mount installations, follow the minimum edge profile recommendations around the cutout to reduce the risk of chipping. Our recommended minimum edge profile is a 3.0mm bevel. Our preferred minimum edge profile is a 3.0-4.0mm Pencil Round edge.
- Twin basin installations (Drop-in or Under-mount), where the tap hole is in the countertop, require extra care to ensure that there is sufficient material left for strength. Extra support is required to ensure that no cracking occurs.
- All sink cutouts must be made using drilled radius corners (minimum 10mm) to prevent stress points in the top.
- We highly recommend that all sink installations be fully supported independent of the Talostone® benchtop. Please be sure to use a professional sink-setter or support rail system. Plan for front-to-back support strips wide (40mm–100mm) to coincide with cutouts and periodic support. ***Support must be provided under all countertop joints.***

Note: Under no conditions can mechanical fasteners (screws, nails, etc.) be affixed directly to Talostone®.

Under-mount sink installations

- All under-mount sink cutouts must have the inside edges polished to match the surface.
- All under-mount sinks should be sealed to the countertop using 100% silicone.

Table Tops

If you are using Talostone® as a freestanding tabletop, care needs to be taken to secure the tabletop to the base firmly. This is of the utmost importance when the table has only one central leg as support. A silicone adhesive is not enough to adequately secure the Talostone® top to the base. In this situation we would recommend a stronger, more rigid adhesive be used (such as a construction adhesive like polyurethane that is strong yet still flexible) to ensure that the tabletop is properly secured to the base.

Wall Applications Structural requirements

Talostone® requires that all interior wall surfaces to be sound, secure, rigid and conform to all applicable laws and engineering practices. All bedding and grouting should be weather, frost, shock, and chemical-resistant, and meet the local engineering specifications, laws, and regulations

- Talostone® can be applied over concrete, block and masonry-type surfaces, plasters, cement backer board, plywood, asphalt, and steel with proper preparation and the use of appropriate adhesives and grout.

- Talostone® and its setting and grouting do not constitute a waterproof barrier and should not be considered a replacement for a waterproof membrane. For information on thin, load-bearing waterproof membranes, consult your preferred supplier.
- Talostone® surfaces to be bonded must be free of dust, oil, grease, paint, tar, wax, curing agents, primers, sealers, form release agents, or any other deleterious substances which may act as bond barriers.
- The installer is responsible for ensuring the removal of any such contaminant prior to the commencement of Talostone® installation.
- All additives, epoxy adhesives, and grouts should be from one manufacturer to ensure compatibility.
- All Talostone® should be handled in a manner to avoid chipping, breakage or the intrusion of foreign matter.
- Handle, store, mix and apply all setting and grouting materials in strict compliance with the manufacturers directions.
- Observe good stone working and safety practices at all times and comply with applicable building codes and regulations.

Protection after Finishing

If further construction work is to be performed at the job site after the installation of the surface is complete, ensure that the Talostone® surfaces are properly protected by covering the entire top with corrugated cardboard or another protective material with warning advice on the protective material, i.e. Talostone Protective Film (TPF).

Insert TPF image with specifications.

Please make your customer aware that any successive trades must not use the new benchtop as a workbench, a stepping or a standing platform, and that any trades using solvents or adhesives should take care to avoid and/or remove any spills created by their solvents or adhesives.

We strongly recommend that your customer confirm, in writing, their satisfaction with the material and workmanship at the end of the job to cover you against damages caused by others.

Batch Tracking

Although we do our best to record all batches that are sold, it is your responsibility to maintain a record of the batch number as listed on the back of the slab. We cannot

guarantee that we will always be able to supply you this information on invoices in the future. (Insert an image of the slab back and explain)

Occupational Safety and Health Administration (OSHA)

Talostone® has an OSHA Policy in place to ensure the safety of all persons on our premises. All visitors must observe any direction given by our staff and also follow any warning signs that are posted throughout the warehouse.

Truck Driver Requirements

- Drivers should stay with their vehicles and ensure the slabs being loaded are suitable.
- Drivers are not to wander through the warehouse unless accompanied by an authorised person.
- Contract Drivers should be made aware of which orders are to be collected by mentioning our stonemason client names or Delivery Docket numbers. This is especially important when there are several orders to be picked up by the contract driver. The Distributor will not be responsible for extra charges for goods missed on the initial delivery and will charge our client for the re-stocking fee if the contract driver picks up wrong order and needs to return the slabs.

Care and Maintenance

Everyday Cleaning

Because all Talostone® surfaces are high in density and low in porosity, normal cleaning with a damp cloth and mild detergent is all that is required to maintain your benchtops.

We recommend wiping the benchtop surface with a soft cloth while the spills are still damp. If further cleaning is needed, apply a spray of mild detergent and leave for a few minutes then wipe off with a soft, clean cloth. More stubborn stains can be removed with a small amount of a non-abrasive cleaner applied to a damp, soft cloth or non-abrasive sponge. We recommend you do not spray the cleaner directly onto the benchtop. The area should then be wiped using a circular motion then rince thoroughly with water and dry with a soft cloth.

We recommend thorough cleaning of your Talostone® surface on a regular basis to keep it looking as-new.

We do not recommend using abrasive cleaners or pads on our polished-finish surfaces as this could damage the surface finish and reduce the surface shine.

Leather Honed and Honed surfaces traditionally require more daily maintenance than standard or polished finishes. With a Leather Honed or Matte finish, there is more surface area so marks, stains and other signs of daily living will show more easily on these surfaces. Most marks or stains can be removed easily usng non-abrasive cleaning products as above.

- Removing Hard Stains

If a stain was unnoticed and accidentally left overnight it may become dry and difficult to clean. We recommend spraying the area with warm water and leaving it for 5 minutes. Once the dried residue become soft, it can be removed with a dry, soft cloth. If the stain proves to be stubborn, a mild cleaning cream and a damp cloth may be used, working in a circular motion. Please apply the cleaning cream to the cloth rather than directly onto the surface.

- Heat Tolerance

    Talostone® engineered stone contains natural quartz and this allows the surface to tolerate brief exposures to moderately hot temperatures. However, as with all stone surfaces, any sudden or rapid temperature change can cause thermal shock, discolouration or damage so we recommend caution and we do not suggest hot pots or pans be placed directly on the surface.

- Scratch Resistant

  Because all Talostone® surfaces are engineered they are highly scratch resistant and durable. But the surface is not indestructible and any stone can be damaged by sharp or metal objects. We strongly recommend the use of a cutting board to avoid damage to your Talostone® surface.

- Cleaning Agents to Avoid

  All Talostone® surfaces are engineered to the highest chemical resistance levels available however, strong chemicals and solvents may permanently damage the slab. We do not recommend the use of any strong caustic chemical cleaners. If your Talostone® surface is accidentally exposed to such chemicals, rinse the area immediately with clean water to neutralise the effect.

For more information of Care & Maintenance on Talostone® surfaces, please contact Talostone® team for further assistance.

Leather Honed and Matte Finish

Cleaning and Maintenance Please understand that Leather Honed and Matt finishes will require more daily maintenance than our polished finishes. Since there is more exposed surface area with these finishes, metal marks, fingerprints and other signs of daily living will show on these materials. Most of these marks can be easily removed with little effort and cleaning products such as Talostone® cleaning kit. Rinse thoroughly with water.

Leather Honed and Matte materials may receive slight surface markings during transportation, fabrication, or installation. These marks can usually be removed using the cleaning methods mentioned above. Please note that Leather Honed and Matt finishes will require more daily maintenance than polished finishes. Since there is more exposed surface area with these finishes, metal marks, finger prints, and other signs of daily living will be more apparent. However, superficial marks like these can be removed with effort by using nonabrasive cleaning products such as Talostone® cleaning kit. Rinse thoroughly with warm & clean water. Please be advised that Talostone® products are with high stain resistance but not stain proved. Any incorrect use and cleaning methods will cause permanent mark on the products.

By reading this document, you agree that the properties of these unique finishes have been fully explained to you, and that you understand that more frequent cleaning may be required to keep the product looking new and free of marks. You also understand that while Talostone® has a 15-year Residential Warranty, this warranty covers failures caused by product defects when the material is installed by a Talostone® Certified Stonemason. Marks that are common on these finishes are not covered by our warranty.

For additional warranty information, please refer to the Warranty Policy and Care and Maintenance sections of the Talostone® website at www.talostone.com.au.

Some restrictions apply. Copies of our Talostone® Warranty are available at authorized dealers and online. Learn more by visiting *www.talostone.com.au*.

Exclusions from the 15-Year Warranty given to each purchaser of a benchtop from the stonemason

The following items or events will void the Warranty:

- Any fault that is visible at the time of fabrication or installation and has not been cut around during fabrication.
- Any commercial slabs: all visual imperfections.
- Any claims arising from not batch-matching the slabs in the installation.
- Any claims arising from not properly checking colour between slabs, even if the batch numbers are the same.
- Changing the original surface finish of the slabs by re-polishing, honing, sealing, or otherwise altering the Talostone® original finish.
- Any creative use of the slabs, such as bending or curving. Although this is possible, it is not a process that Talostone® has control over and therefore we cannot accept responsibility for it.
- Polishing the back of the slabs (except for laminations).
- Milling or reducing the thickness from the back of the slab.
- Securing mechanical fasteners directly onto the slabs.
- Removing Talostone® product information from the back of the slabs with purpose to hide the product information.
- Any chips or cracks as a direct result of cutting or polishing the slabs dry, not following the recommended minimum edge profile details or the mitred edges where the joint is not cut correctly.
- Claims for scratches or damage to the surface after installation. Any mechanical damage caused by hitting or knocking the slabs. Any chemical damage.
- Not allowing sufficient room for expansion.
- Any failure due to inadequate support and any failure due to improper fabrication and or installation.

Talostone® Warranty Policy

Residential and Commercial 15-Year Limited Warranty

Thank you for the purchase of your new Talostone® surfaces, a leading brand for quartz surfaces in Australia. All Talostone® products come with 15-Year Limited Warranty applicable to our products.

Talostone® will warrant from the original date of installation material that fails due to any Talostone® slab manufacturing defect when fabricated and installed by a qualified, licensed stonemason/fabricator who complies with all Health & Safety requirements from Safe Work Australia (www.safeworkaustralia.gov.au) for stone fabricating business. This warranty applies to the repair or replacement of failed material that has been permanently installed in your residence. The option to repair or replace the material is at the sole discretion of Talostone®.

This 15-Year Limited Warranty is available to residential and commercial jobs in which Talostone® has been originally installed. This Warranty is only available to the first owner of the properties.

Terms and Conditions

A. *This warranty applies only to Talostone® quartz surfacing materials and does not apply to any other products, including other quartz surfacing products manufactured or supplied by any other party, except Talostone®.*

B. *This warranty applies only to Talostone® quartz surfacing materials that have been permanently installed in the interior applications and have not been moved from their original installation. If after or during installation you decide that you do not like the colour or finish you selected, that decision is not covered under this warranty.*

C. *This warranty does not cover any residence where the owner is not the occupant.*

D. *This warranty does not cover materials and/or services that have not been paid in full.*

E. *This warranty applies only to materials that have been maintained according to the Talostone® Care & Maintenance guidelines. Care & Maintenance guidelines are available at www.talostone.com.au.*

F. *To request service under this warranty you must contact the company who sold you Talostone® or contact Talostone® directly at (61) 02 8783 0600 within thirty (30) days of the failure of Talostone® quartz surfacing materials.*

G. *Following installation, you must register your product within thirty (30) days in order to activate your warranty. Simply complete the online form made available at www.talostone.com.au. In the event that no record of your warranty is on file, you must provide proof of purchase in the form of a copy of your original receipt or invoice showing the name of the Owner, Authorised Dealer and Licensed Fabricator. Upon receipt of your original receipt or invoice showing the name of the Owner, Authorised Dealer and Licensed Fabricator, Talostone® will honour this warranty even though no warranty is on file. You must agree to cooperate with Talostone® or its authorised agents in the inspection of the product and assist us in efforts to perform our obligations under this warranty.*

H. *Given that Talostone® Slabs are manufactured from natural materials, each slab is unique and variations to shading, quartz distribution and reflectivity do occur and are naturally occurring characteristics of the material. Consequently, (i) samples are indicative only and may vary from the final product; and (ii) naturally occurring variations in appearance caused by artificial or natural lighting are not covered by the warranty; Changes in the appearance of the slab from reflected light is a natural part of the slabs.*

I. *Inspections of the surface of the slabs is to be in a normal viewing position with the slab being illuminated by "non-critical light". Meaning of "Non-critical light" is the light that strikes the surface is diffused and is not glancing or parallel to that surface.*

J. *This warranty is not transferable.*

Exclusions

10. This warranty does not cover products used as flooring material.

11. *This warranty does not cover products installed in any outdoor application.*

12. *This warranty does not cover improper use or abuse. Improper use or abuse includes, but is not limited to, damage from mishandling of the product, damage from excessive heat or uneven exposure to weather conditions, physical or chemical abuse and damage from improper care and maintenance, i.e placing hot items including, but not limited to, hot pans, electric frying pans or oven trays directly on the Slab, or constant & exceeded heat amount to the product for BBQ/Fireplace applications, etc.*

13. *Cracks in the material are not a material fault; cracking is the result of externally induced mechanical stress on the material after installation. The most likely causes are settlement or movement, excessive weight being placed on the tops, such as standing or sitting on them. Heat, as explained in section (3) may also result in a crack. Any crack emanating from an overhang, a sink cut-out, cook top cut-out or "L" shaped cut-out is also not covered under this warranty, these are not caused by any fault in the material.*

14. *This warranty does not cover chips or other excessive impact damage in the product. Chipping is not a material fault, it is normally the direct result of an impact to the edge of the benchtop surface, as such it is not covered by warranty.*

15. *This warranty does not cover scratches. Talostone® is a very hard material and highly scratch resistance but not scratch proof. Proper care must be exercised including the use of a cutting board as part of your care and maintenance.*

16. *This warranty does not cover routine maintenance. Routine maintenance includes but is not limited to, minor conditions such as removing stains and water spots by following the techniques specified in the Talostone® online Care & Maintenance Guidelines at www.talostone.com.au.*

17. *This warranty does not cover failures due to fabricators/installers not following the prescribed fabrication and installation procedures as outlined by Talostone® improper fabrication and/or installation is the sole responsibility of the fabricator and/or installer.*

18. *This warranty does not cover any defect that was visible at the time of fabrication and was not avoided during fabrication. Fabricators are required to perform a visual inspection of all materials prior to fabrication and again prior to installation.*

19. *This warranty does not cover seam appearance or seam performance, adhesives, caulk or other accessory items. Once the product is installed, the two main reasons for seam separation or cracking are the shifting or movement of the substrate, cabinets or foundation, and thermal shock. Thermal shock can occur when a hot pan, dish or other receptacle or object is left on the countertop for more than a brief period. Trivets or hot pads should always be used. These issues are not considered material defects and are subject to proper care and maintenance by the owner.*

20. *This warranty does not cover any chemical damage.*

21. *This warranty does not cover material that has been milled or reduced in thickness.*

22. *This warranty does not cover the installation of sinks.*

23. *This warranty does not cover securing mechanical fasteners directly into the material.*

24. *This warranty does not cover any failures due to inadequate support for the installation. This includes overhangs in excess of the recommendations provided by Talostone® which are inadequately supported.*

25. *This warranty does not cover any chips or cracks that are a result of "DRY" cutting or polishing.*

26. *This warranty does not cover mitred edges where the joint is not cut correctly.*

27. *This warranty does not cover the minimum distance from the periphery of the gas burner to the Talostone® splashback is less than 150mm.*

28. *This warranty does not cover the altering of any factory applied finish. Only colours listed as available in our brochure, sample book or on our website as "Leather honed" are eligible under this warranty. Any issues arising from the practice of "in-shop" honing is the sole responsibility of the fabricator.*

29. *This warranty does not cover additional modifications such as plumbing, electrical, tile, Cabinets, flooring, etc. that may be necessary to repair or replace the Talostone® product covered under this warranty.*

30. *This warranty does not cover natural variations in the colour, size, shape and distribution of the pattern of the natural quartz or the natural variations in background tone. These characteristics are inherent and unique characteristics of the product. Colour samples provided to consumers, dealers and fabricators are only representative and not an exact replication of what will be installed in your home.*

31. *This warranty does not cover what is referred to as spots or blemishes smaller than a ten (10) cent piece. A certain level of spots or blemishes are inherent in the manufacturing process and do not affect the structural integrity of the material.*

32. *Talostone® materials contain important product information on the back of each slab. Removing this product information will be void of the warranty.*

Talostone® is not responsible for damage or injury caused in whole or in part by acts of God, job site conditions, and architectural/engineering design, and structural movement, acts of vandalism or accidents.

Talostone® shall not be responsible in either contract or tort for any loss of direct, indirect, consequential, incidental, special, exemplary, or punitive damages arising out of the use or the inability to use the products covered by this warranty. Some states do not allow exclusion or limitation of incidental damage, so the above limitations or exclusions may not apply to you.

Privacy

I. *Talostone® requires the information that it requests from you when you purchase the Product and when you make a Warranty claim in order to provide the Warranty to you. For this purpose, it may be necessary to give your personal information to other companies.*

II. *Talostone® may also prepare aggregated user statistics or information summaries to describe the services of Talostone® and their popularity to business partners of Talostone® and prospective advertisers and for other lawful purposes. Such information may be disclosed by Talostone® to other companies appointed by it for this purpose. However, this information will not include information which identifies you personally.*

III. *Talostone® may also from time to time send you information regarding Talostone® range of products. If you do not wish to receive this information please advise Talostone® by calling Talostone® Head Office at 02 8783 0600 or sending an email to info@talostone.com.au.*

THE FOREGOING IS THE COMPLETE WARRANTY FOR TALOSTONE® AND SUPERSEDES ALL OTHER WARRANTIES AND REPRESENTATIONS, WHETHER ORAL OR WRITTEN. EXCEPT AS EXPRESSLY SET FORTH ABOVE, NO OTHER WARRANTIES ARE MADE WITH RESPECT TO TALOSTONE® EXPRESSLY DISCLAIMS ALL WARRANTIES NOT STATE HEREIN, INCLUDING, TO THE EXTENT PERMITTED BY APPLICABLE LAW, ANY WARRANTY THAT MAY EXIST UNDER NATIONAL, STATE, PROVINCIAL OR LOCAL LAW INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME STATES OR OTHER JURISDICTIONS DO NOT ALLWO THE EXCLUSION OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

Talostone® is a registered trade mark of Talostone Pty Ltd, ABN 78 162 170 194.

Technical Data

SGS

TEST REPORT

No. : XMCCM130500410
Date : Jul.05, 2013
Page: 2 of 10

Summary of test results:

(Average value)

Test items	Test methods	Test results
Stain resistance	ANSI Z 124.6-2007	Pass
Absorption by weight	ASTM C97/C97M-09	0.03%
Density		2360kg/m^3
Flammability	ASTM E 84-2011b	Class A
Compressive strength	ASTM C170/C170M-09	213 Mpa~224 Mpa
Flexural strength	ASTM C880/C880M-09	34.0 Mpa~39.4 Mpa
Abrasive wear index	ASTM C501-84(2009)	Wear index: 140
Liner thermal expansion coefficient	ASTM C531-00(2012)	1.6×10^{-5}/℃
Static coefficient of friction	ASTM C1028-07$^{\varepsilon1}$	Dry condition: 1.07 Wet condition: 0.59
Impact resistance	ANSI Z 124.6-2007	No crack or chip after test.
Thermal shock resistance	EN 14617-6:2005	No visual defects after 20 cycles.
Resistance to freeze/thaw cycling	Refer to ASTM C1026-2010	No visual defects after 20 freeze/thaw cycles.
Mohs' hardness	EN 101:1991	7

Sample 2: CRUSHED ICE

Test items	Test methods	Test results
Mohs' hardness	EN 101:1991	7

******** To be continued********

XMCCM 001357

Results represent a partial series range.

Talostone® Safety Data Sheet V5

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name	TALOSTONE®
Synonyms	

1.2 Uses and uses advised against

Product Use	QUARTZ SURFACING PRODUCTS FOR INDOOR USE

1.3 Details of the supplier of the product

Supplier name	TALOSTONE PTY LTD
Address	97 Jedda Road, Preston, NSW, 2170, AUSTRALIA
Telephone	02 8783 0600
Email	info@talostone.com.au
Website	https://talostone.com.au/

1.4 Emergency telephone numbers

Emergency	(0)405 451 858

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

2.2 GHS Label elements

No signal word, pictograms, hazard or precautionary statements have been allocated.

2.3 Other hazards

The product is not hazardous as supplied. However, hazards are associated with processing, including the fabrication workshop and upon installing and removing/demolishing slabs, as respirable crystalline silica quartz dust may be generated. Operations such as cutting, drilling, sawing, routing, grinding, chipping, polishing, sanding etc. can generate dust, and adequate

ventilation and wet processes are recommended to keep exposure to airborne dust below acceptable limits. Overexposure to airborne quartz can cause silicosis (non-reversible scaring of the lung tissue) with a risk of cancer. DRY cutting, drilling, sawing, sanding etc are prohibited!

DANGER!

Category 1A (Carcinogenicity) (H334, H350, H372)

Category 3 (Respiratory tract irritation) (H335)

Hazard Statement:

(H334) May cause allergy or asthma symptoms or breathing difficulties if inhaled

(H350) May cause CANCER (inhalation)

(H372) Causes damage to lungs through prolonged or repeated exposure (inhalation)

(H335) May cause respiratory tract irritation



Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260+P261 Do not breathe dust generated during the Fabrication Process, installation and removing/demolishing processes.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P264 Wash...thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P281 Use personal protective equipment as required.

P284 Wear respiratory protection.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content %
PIGMENT(S)	-	-	Remainder
QUARTZ (CRYSTALLINE SILICA)	14808-60-7	238-878-4	<93%
CRISTOBALITE	14464-46-1	238-455-4	<50%
TITANIUM DIOXIDE	13463-67-7	236-675-5	<5%
GLASS	-	-	<50%
POLYESTER RESIN(S)	-	-	<15%
ADDITIVE(S)	-	-	<5%
1,3-ISOBENZOFURANDIONE, POLYMER WITH 2,5-FURANDIONE AND 2,2'-OXYBIS[ETHANOL]	26123-45-5	-	Not Available
TRIDYMITE	15468-32-3	-	Not Available

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye (Dust exposure) Flush gently with running water, irrigating under eyelids. Seek medical attention if irritation develops.

Inhalation (Dust exposure) If inhaled remove from contaminated area. Apply artificial respiration if not breathing.

Skin (Dust exposure) Gently flush affected areas with water. Seek medical attention if irritation develops.

Ingestion For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). Due to product form and application, ingestion is considered unlikely.

4.2 Most important symptoms and effects, both acute and delayed

Chronic over exposure to silica quartz dust may result in silicosis (lung disease). Principal symptoms of silicosis are coughing and breathlessness. Crystalline silica is classified as carcinogenic to humans (IARC Group 1). However, due to the product form (solid bench-top), over exposure via inhalation is not anticipated with normal use, unless cutting, grinding, machining, etc dry/set product.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture

Non flammable. May evolve toxic gases if strongly heated. May evolve silicon compounds, carbon oxides, titanium oxides, metal oxides and hydrocarbons when heated to decomposition. Dust may form combustible mixtures with air.

5.3 Advice for firefighters

No fire or explosion hazard exists.

5.4 Hazchem code

None allocated.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

Moisten with water to prevent a dust hazard and place in sealable containers for disposal or reuse. Avoid generating dust.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs. Ensure containers are adequately labelled and protected from physical damage when not in use. Suppress dust with water if stored in bulk.

7.3 Specific end uses

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m3	ppm	mg/m3
Cristobalite	SWA [AUS]	--	0.1	--	--
Quartz (respirable dust)	SWA [AUS]	--	0.1	--	--
Titanium dioxide (a)	SWA [AUS]	--	10	--	--

Biological limits

No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Wet where possible. Maintain dust levels below the recommended exposure standard.

PPE

Eye / Face If cutting or sanding with potential for dust generation, wear dust-proof goggles.

Hands Wear leather or cotton gloves.

Body Wear safety boots.

Respiratory If cutting or sanding with potential for dust generation, wear a Class P2 (Particulate) respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	COLOURED SOLID
Odour	ODOURLESS
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	NOT AVAILABLE
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE

pH	NOT AVAILABLE
Vapour density	NOT AVAILABLE
Specific gravity	2.30
Solubility (water)	NOT AVAILABLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

9.2 Other information

Bulk density	2360 kg/m^3 (Approximately)

10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Hazardous polymerisation is not expected to occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources. Avoid shock, friction and heavy impact.

10.5 Incompatible materials

Incompatible with strong acids (e.g. hydrochloric acid).

10.6 Hazardous decomposition products

May evolve silicon compounds, carbon oxides, titanium oxides, metal oxides and hydrocarbons when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

Information available for the ingredients:

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
TITANIUM DIOXIDE	5000 mg/kg (rat)	--	3.43 - 6.82 mg/L air (rat)

Skin Contact may result in mechanical irritation, redness, rash and dermatitis.

Eye Contact may result in mechanical irritation, lacrimation and redness.

Sensitisation May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Mutagenicity Not classified as a mutagen.

Carcinogenicity The product is not hazardous as supplied. However, hazards are associated with processing, including the fabrication workshop and upon installing and removing/demolishing slabs. Operations such as cutting, drilling, sawing, routing, grinding, chipping, polishing, sanding etc. can generate dust, and adequate ventilation and wet processes are recommended to keep exposure to airborne dust below acceptable limits. Dust created when the product is cut, grinded and machined may contain crystalline silica some of which may be respirable (particles small enough to go into deep parts of the lung when breathed in). Crystalline silica is classified as carcinogenic to humans (IARC Group 1). However, there is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis. Therefore, preventing the onset of silicosis will also reduce the cancer risk. Titanium dioxide is classified as possibly carcinogenic to humans (IARC Group 2B).

Reproductive	Not classified as a reproductive toxin.
STOT - single exposure	Over exposure may result in irritation of the nose and throat, with coughing.
STOT - repeated exposure	The product is not hazardous as supplied. However, hazards are associated with processing, including the fabrication workshop and upon installing and removing/demolishing slabs. Operations such as cutting, drilling, sawing, routing, grinding, chipping, polishing, sanding etc. can generate dust, and adequate ventilation and wet processes are recommended to keep exposure to airborne dust below acceptable limits. Dust created when the product is cut, grinded and machined may contain crystalline silica some of which may be respirable (particles small enough to go into deep parts of the lung when breathed in). Repeated overexposure to crystalline silica for extended periods may result in silicosis. Repeated exposure to titanium dioxide may result in slight lung fibrosis.
Aspiration	This product does not present an aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

The substance is inert there is no evidence of significant toxicity.

12.2 Persistence and degradability

Being inorganic, the substance will not biodegrade.

12.3 Bioaccumulative potential

The substance is inert and will not be absorbed and accumulate in tissues.

12.4 Mobility in soil

No information provided.

12.5 Other adverse effects

The main component/s of this product are not anticipated to cause any adverse effects to plants or animals.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal Reuse where possible. No special precautions are normally required when handling this product.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	None allocated.	None allocated.	None allocated.
14.2 Proper Shipping Name	None allocated.	None allocated.	None allocated.
14.3 Transport hazard class	None allocated.	None allocated.	None allocated.
14.4 Packing Group	None allocated.	None allocated.	None allocated.

14.5 Environmental hazards

No information provided.

14.6 Special precautions for user

Hazchem code None allocated.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

Inventory listings AUSTRALIA: AICS (Australian Inventory of Chemical Substances)

All components are listed on AICS, or are exempt.

16. OTHER INFORMATION

Additional information

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose

mg/m3	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline)
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

The information herein is believed to be up-to-date and accurate. However, Talostone® cannot guarantee the recommendations or suggestions herein, as the material conditions of use are beyond our control. Under no circumstances does the data contained in this Safety Data Sheet constitute a guarantee of specific properties other than such properties explicitly mentioned in this SDS, or create any contractual relationship. It is the exclusive responsibility of the recipient of our material to check the corresponding laws, rules and regulations prior to using the product and to comply with them in all respects. The user of the product only is responsible for determining the suitability of our products for its particular application.

The contents of this Safety Data Sheet must not be interpreted as a recommendation to use any product in violation of the laws or safety practices.

[END OF SDS]

Talostone Product Specifications

TALOSTONE®
Your Natural Choice®
ABN: 78 162 170 194
Tel: 02 8783 0600
www.talostone.com.au info@talostone.com.au
97 Jedda Rd, Prestons NSW 2170 Australia

Talostone® Specification Spreadsheet 2019

Effective from 01st Jan 2019

STRICTLY PRIVATE & CONFIDENTIAL

For latest Talostone Colour Selection, please visit talostone.com.au

Supersedes all prior edition

TALOSTONE® Colour Range	TALOSTONE® Colour Code	TALOSTONE® Colour Name	TALOSTONE® Specifications								
			12mm Thickness			20mm Thickness			30mm Thickness		
			Nominal slab size	Surface Finish	Weight range (kg/M²)	Nominal slab size	Surface Finish	Weight range (kg/M²)	Nominal slab size	Surface Finish	Weight range (kg/M²)
Standard Range	5010P	Crushed Ice™	-	-	-	**3200x1600x20mm** 3060x1440x20mm Mainly for Projects	Polished	45-51	-	-	-
	5020P	White MirrorLux™	-	-	-	**3200x1600x20mm** 3060x1440x20mm Mainly for Projects			-	-	-
	5030P	Silver Ice™	-	-	-	**3200x1600x20mm** 3060x1440x20mm Mainly for Projects			-	-	-
	6010P	Desert White™	-	-	-	**3200x1600x20mm** 3060x1440x20mm Mainly for Projects			-	-	-
	5050P	Black Caviar™	-	-	-	**3200x1600x20mm**			-	-	-
	6060P	Black Pearl™	-	-	-	**3200x1600x20mm**			-	-	-
	6070P	Desert Grey™	-	-	-	**3200x1600x20mm**			-	-	-
Deluxe Range	8050P	River Sand™	-	-	-	**3200x1600x20mm**	Polished	45-48	-	-	-
Premium Range	3010P	Arctic White™	-	-	-	**3200x1600x20mm**	Polished	45-48	-	-	-
	3020P	Neutral White™ New	-	-	-	**3200x1600x20mm**	Polished		-	-	-
Marble Range	8080P	Carrara Gioia™	New 3200x1600x12mm	Polished	27-30	**3200x1600x20mm**	Polished	42-48	-	-	-
	8110P	Carrara Classic™	-	-	-	**3200x1600x20mm**	Polished		**3200x1600x30mm**	Polished	67-69
	8150P	Carrara Gold™	-	-	-	**3200x1600x20mm**	Polished		-	-	-
	8270P	Marquina™	-	-	-	**3200x1600x20mm**	Polished		-	-	-
	8250LH 8250P	Marmo Gris™	-	-	-	3075x1600x20mm	*Leather Honed* Polished		-	-	-
Premium Marble Range	9010LH 9010P	Concrete Original™	-	-	-	3075x1600x20mm	*Leather Honed* Polished	42-48	-	-	-
	9020LH 9020P	New Imperial Danby™	-	-	-	3075x1600x20mm	*Leather Honed* Polished		-	-	-
	9030M 9030P	New Calacatta Luxe™	- New 3200x1600x12mm	- Polished	- 27-30	**3200x1600x20mm**	New Matte Polished		-	-	-
	9060LH 9060P	Venato Extra™	-	-	-	3075x1600x20mm	*Leather Honed* Polished		-	-	-
	9070LH 9070P	Calacatta Extra™	-	-	-	3075x1600x20mm	Leather Honed Polished		- 3075x1600x30mm	- Polished	- 68-70
	9080LH 9080P	Calacatta Gold™	-	-	-	3075x1600x20mm	Leather Honed Polished		- 3075x1600x30mm	- Polished	- 68-70
	9090LH 9090P	Statuario™	-	-	-	3075x1600x20mm	*Leather Honed* Polished		- 3075x1600x30mm	- Polished	- 68-70

For lastest **TALOSTONE®** *colours, please visit* ***talostone.com.au***

Important Notes:

- Slabs are sold by slabs and picked up by stonemasons from 97 Jedda Rd, Prestons NSW 2170 Australia;
- 20mm thickness slabs are regular stock, 12mm & 30mm thickness slabs are only for selected colours with limited stock available;
- 12mm thickness slabs on Calacatta Luxe™ 9030P polished & Carrara Gioia™ 8080P polished are mainly for splashbacks, interior wall panels and feature walls with backlit effects;
- Matte finish of Calacatta Luxe™ 9030M & Leather Honed surface finish of Calacatta Extra™ 9070LH, Calacatta Gold™ 9080LH, and Statuario™ 9090LH are limited stock, please check with Talostone® for the availability;
- Polished surface finish of Concrete Original™ 9010P and Venato Extra™ 9060P. Please check with us to get the stock availability of your special requirements on Polished Finish on these two colours;
- Neutral White™ is a complementary colour for Talostone Marble and Premium Marble range colours and will be available after 10th July 2019;
- **Talostone® does not supply our slabs to the stonemasons who do not have licences and do not meet Safework NSW/Australia and OHS Australian Standards. It is all our customers' responsibilities to engage certified stonemasons for your residential and commercial projects.**
- All information above supersedes all previous versions and subject to change without notice;
- For more assistance from **TALOSTONE®**, please call **02 8783 0600** or email **info@talostone.com.au**, thank you for your support.

Thank you for choosing* TALOSTONE® *- Your Natural Choice®

Talostone® Head Office & Warehouse

T. 02 8783 0600 E. info@talostone.com.au
97 Jedda Road, Prestons NSW 2170 Australia

Talostone® City Experience Centre - Sydney

T. 02 8783 0600 E. info@talostone.com.au
1/1 Danks Street, Waterloo NSW 2017 Australia

Distribution Centre in Melbourne, VIC

talostone.com.au