

CORIAN® QUARTZ SAFE HANDLING AND STORAGE

Introduction

This fabrication bulletin addresses the safe handling and storage of Corian™ Quartz surfaces.

Overview

Proper handling and storage of Corian™ Quartz surface products and accessories will help avoid injuries and ensure that these products are in good condition when time comes to start fabrication. Every business handling Corian™ Quartz surfaces must have the appropriate material handling equipment to ensure the safe movement of slabs and work-in-progress product. Following are a description of the material handling processes and best practices recommended for safe handling. Additional guidance may be found in OSHA Safety and Health Information Bulletin SHIB 08-12-2008, *Hazards of Transporting, Unloading, Storing and Handling Granite, Marble and Stone Slabs*.

It is the responsibility of each business to determine the proper material handling equipment for their facility.

A. General Safety

- Inspect all equipment prior to use to ensure the safe operation of equipment.
- Have three operators to ensure optimal safe handling of slabs: one operator operating the forklift and two operators on the floor managing the slab movement.
- Wear proper personal protective equipment at all times: leather gloves, sturdy shoes, safety glasses, and a hard hat when lifting the material overhead.
- Slabs are very heavy and awkward to handle. When moving a slab, avoid lifting the slab higher than necessary.
- Be aware of the “fall shadow”, defined as the area on both sides of the slab where the slab could land and topple if it were to fall. Operators should never position themselves directly under, in front of, or between slabs. Always stand in a position away from where the slab could potentially fall.
- Keep hands away from moving slabs to avoid crushing injuries.

B. Material Handling

Every business that handles Corian™ Quartz slabs will need a forklift to off-load A-frames from delivery trucks, move A-frames of slabs in and out of inventory, and to load A-frames for delivery to fabricators or installers. Most businesses will equip forklifts with a slab boom and lifter (clamp) for moving individual slabs.

Corian™ Quartz surfacing is a heavy material weighing 10 lb./sq. ft. (49 kg/m²) for 2 cm and 15 lb./sq. ft. (74 kg/m²) for 3 cm product. Individual slabs can weigh up to 605 lbs. (275 kg) for 2 cm and 887 lbs. (403 kg) for 3 cm.

A fully loaded A-frame can weigh up to 7,500 lbs. (3410 kg). Forklifts should have a minimum capacity rating of 8,000 lbs. (3,640 kg). Note that A-frame placement on the forks relative to the Load Center may reduce fork lift capacity.

C. Moving slabs on A-frames

A-frames are intended to be moved only when slabs are secured to the A-frame. Secure the slabs to the A-frame with banding or ratcheting tie down straps placed around the entire A-frame. The intent is to duplicate the original banding as it comes from the factory.

Moving an A-frame using clamps to secure the cross members is an unsafe practice as the A-frame is not designed for this use.

When manipulating slabs, check to make sure the A-frame is flat, resting on level ground, and is not leaning in any way. The worker should be aware of the fall shadow where the slab could potentially fall and stand in an upright position to the side of the A-frame when cutting the banding from the A-frame.

When removing slabs from the A-frame, inserting a mechanical stop device (e.g. rigid safety pole similar to poles used for index racks) is recommended as a preventative measure to prevent a slab from falling towards the worker. Safety poles should be positioned before any banding is cut.



Figure C-1: Safety pole

Dragging A-frames across a floor can cause damage and is an unsafe practice. The only exception would be when the A-frame is equipped with runners added to the A-frame to enable loading and unloading of box trailers. For A-frames that have been unloaded from box trailers, make sure the runner is intact at the time of unloading.

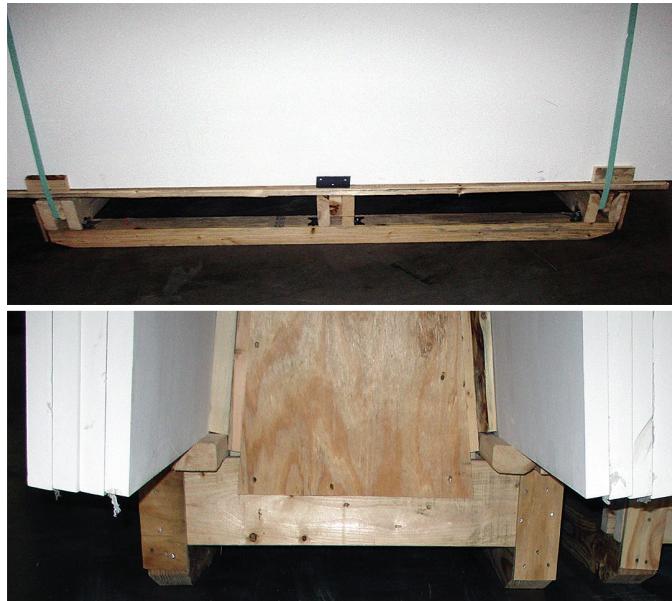


Figure C-2: A-frame shown with runners for box truck movements.

D. Slab Storage

Cost-effective ways to store Corian™ Quartz slabs are on an A-frame (temporary storage), or in vertical storage racks (long term storage). A-frames used for storage are generally constructed of wood, while vertical storage racks are generally constructed of steel. Steel posts are often covered at the point of contact with carpet, rubber pads, or wood to prevent scratching, gouging, or scoring of a slab. Vertical storage racks should be capacity rated and designed for stone slab storage.

Slabs should not be stored on A-frames without banding or strapping the slabs to the A-frame. Never attempt to move an unbanded A-frame. The A-frame should be protected from the weather and any impact that may tip a slab or the entire A-frame. The number of slabs on either side of the A-frame should be balanced to make the A-frame more stable.

A-frames are designed for slab delivery and temporary storage. A-frames are not designed for long-term storage of slabs.

If slabs are to be stored on A-frames for an extended period, the A-frame should be periodically inspected to insure integrity. A-frames should not be stored outside or in a wet environment for an extended period because they are not made of treated wood.

Any time Corian™ Quartz surfacing is stored outside, it needs to be covered. Slabs should be stored with the unpolished side exposed.

Protect Corian™ Quartz slabs from prolonged exposure to direct sunlight as fully or partially exposed slabs can experience color fading. In northern climates where rain, ice, and snow fall during the winter months, ice can build up under the wood braces of the A-frame. The combination of accumulated ice and the metal forks on a forklift require special handling. Care should be taken to defrost the ice. The forklift should be outfitted with rubber sheaths to prevent the A-frames from slipping during transport. In addition, individual slabs which are icy or wet should be warmed and dried prior to hoisting to avoid slippage while transporting.

E. Moving Slabs and/or Work-in-Process within the Fabrication Shop

There are a number of effective products for moving material through a shop. Please consult the appropriate vendor for the right equipment for your shop. Verify that the equipment has a suitable capacity rating for the intended use. The following is not an exhaustive list:

- Forklift equipped with a boom and slab lifter (clamp)
- Overhead crane equipped with a vacuum lift or slab lifter (clamp)
- Carts/tables/dollies:
 - Slab cart/buggy (hydraulic and battery operated versions are available)
 - Tilting hydraulic transport tables
 - Workshop cart with wheels
 - Fabrication carts (A-frame mode that pivots to horizontal mode is available)
 - Hand trucks (multi-position versions available)
 - Slab dolly
- Jib crane equipped with a vacuum lift or slab lifter (clamp)
- Conveyors

F. Transporting Finished Material to the Jobsite

Follow the general safety recommendations on the previous pages. Moving finished material from the fab shop to the jobsite requires some careful planning. Care needs to be taken so that the finished material is not damaged in transit. Exercise care if manual lifting becomes necessary. Always wear the appropriate personal protective equipment. Always lift the material using proper lifting techniques. Secure the material to an A-frame or similar device located inside the vehicle (clamps and/or tie down straps should be used). Place individual pieces face-to-face and back-to-back to avoid damaging the material. Do not overload the transport device. Secure the device and the material to avoid any shifting that may occur during transit.

Upon arrival and before unloading the material, walk the planned entry route to assess and determine where access restrictions may pose a problem with delivery of the material. Clear the intended route of any obstructions. Take extreme care when off-loading the material from the vehicle to the ground. Use transport carts where possible versus hand carrying. Always lift the material using proper lifting techniques and wear proper personal protective equipment.

CORIAN® QUARTZ SAFE HANDLING AND STORAGE

6. Reference

OSHA SHIB 08-12-*Hazards of Transporting, Unloading, Storing and Handling Granite, Marble and Stone Slabs*, U. S. Department of Labor, Occupational Safety and Health Administration, 2008

<https://www.osha.gov/dts/shib/shib081208.html>

PLEASE VISIT OUR WEB SITE: WWW.CORIANQUARTZ.COM OR CONTACT YOUR CORIAN® REPRESENTATIVE FOR MORE INFORMATION ABOUT CORIAN® QUARTZ.

This information is based on technical data that DuPont Specialty Products USA, LLC and its affiliates ("DuPont") believe to be reliable, and is intended for use by persons having technical skill and at their own discretion and risk. DuPont cannot and does not warrant that this information is absolutely current or accurate, although every effort is made to ensure that it is kept as current and accurate as possible. Because conditions of use are outside DuPont's control, DuPont makes no representations or warranties, express or implied, with respect to the information, or any part thereof, including any warranties of title, non-infringement of copyright or patent rights of others, merchantability, or fitness or suitability for any purpose and assumes no liability or responsibility for the accuracy, completeness, or usefulness of any information. This information should not be relied upon to create specifications, designs, or installation guidelines. The persons responsible for the use and handling of the product are responsible for ensuring the design, fabrication, or installation methods and process present no health or safety hazards. Do not attempt to perform specification, design, fabrication, or installation work without proper training or without the proper personal protection equipment. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents. DuPont shall have no liability for the use of or results obtained from such information, whether or not based on DuPont's negligence. DuPont shall not be liable for (i) any damages, including claims relating to the specification, design, fabrication, installation, or combination of this product with any other product(s), and (ii) special, direct, indirect or consequential damages. DuPont reserves the right to make changes to this information and to this disclaimer. DuPont encourages you to review this information and this disclaimer periodically for any updates or changes. Your continued access or use of this information shall be deemed your acceptance of this disclaimer and any changes and the reasonableness of these standards for notice of changes..

The Corian® Quartz Logo and Corian® are registered trademarks or trademarks of DuPont Specialty Products USA, LLC or its affiliates. ©2019. DuPont. All rights reserved.