

Quartz On-Site Fabrication Guide

The logo consists of the letters 'EM' in a white, serif font, centered within a solid gold square.

Electric Mirror quartz tops are prefabricated and will be provided cut to size and ready for installation unless otherwise specified. If fabrication is required on-site, please review these guidelines.

Fabrication

On-site fabrication of quartz tops requires a flat and stable work surface, access to water and electricity for tools, proper ventilation for dust control, and a secure area for storing materials and equipment. Fabricators should also have the necessary tools, such as diamond blades, polishing pads, and adhesive materials. Precision cutting, shaping, and polishing should be done with care and attention to detail to ensure a high-quality finished product. Proper safety measures should be followed during the fabrication. Quartz slabs must be stored indoors and allowed to acclimate for at least 48 hours before fabrication.

- There is a higher risk of breakage during winter months if slabs are not acclimated before cutting.
- Avoid generating excessive heat. All cuts should be made using wet diamond cutting tools only. Avoid cross-cutting.
- Use a core bit when preparing a cutout and avoid damaging the drilled area with a cutting disk. Damage to the drilled area can result in stress points that may lead to hairline cracks.

Polishing

These recommendations are guidelines 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 the edge profile may cause overheating, leaving the edge prone to chipping. Excessive heat undermines the physical structure of the slab. Although not visible to the naked eye, micro-fissures are formed, leading to chipping upon impact, discoloration, and an uneven polish.

- Only polish the edge details, not the top surface.
- Polishing should begin with a surface that is smooth, clean, and free from any residual adhesive.
- Edge profile polishing should be carried out systematically and gradually, starting with rougher abrasives and gradually moving to finer abrasives to achieve a smooth and glossy finish. Use diamond pads only.
- The pad's quality will affect the time required to complete polishing and the quality of the finish.
- Quartz is made with polymer resins, so only use wet polish. Dry polish will burn the material.
- Care must be taken not to over-polish edges in excess of the factory surface polish.
 - Honed Finish – 100, 200, 400 grit diamond pad.
 - Polished Finish – 100, 200, 400, 500-800, 1500-2000, 2000-3000 grit diamond pad.
 - Use lower RPM on polishers when using 1000 grit or higher diamond polishing pads.

Lamination

On-site laminate involves adhering a thin layer of quartz material to the edges of the countertop to create a seamless and polished finish. This technique enhances the durability and aesthetic appeal of the countertop, providing a sleek and cohesive look. By carefully selecting matching quartz materials and using specialized adhesives and tools, fabricators can achieve a seamless look that integrates with the rest of the countertop. Proper preparation, precision cutting, and skilled craftsmanship are essential for a successful on-site lamination.

- Clean the material with alcohol and remove excess material with a wet cleaning method before gluing it together.
- Make grooves and notches on each piece of quartz. The notches give space for the glue as quartz is non-porous and will not absorb the glue.
- To achieve a minimally visible seam, the adhesive must be pigmented to a color similar to the installed material. When using color-paste pigments mixed with the adhesive, add extra colors/pigments to the glue to avoid dark seam lines in lighter colors. The higher concentrations of pigments will keep the glue from changing colors once it is completely dry.
- Grind away any waves or indentations to an even finish on lamination areas for edge detail.

Fabrication Safety

Electric Mirror is committed to promoting safe quartz fabrication. This product can expose you to chemicals, including crystalline silica, which is known to the State of California to cause cancer. Silica dust is harmful if inhaled. Exposure to silica dust from cutting, grinding, or polishing can cause acute lung injury, silicosis, or cancer. This is a serious issue, and it is important to work diligently to prevent exposure to silica dust. Strict adherence to all OSHA standards during fabrication is critical to ensuring safety. For more information, go to www.P65Warnings.ca.gov or www.osha.gov.

- Wear appropriate personal protective equipment such as N95 respirators, goggles, gloves, and coveralls.
- Use dust control methods such as wet cutting or vacuum systems to minimize airborne silica dust.
- Work in well-ventilated areas or use exhaust fans to reduce dust accumulation.
- Follow proper handling and disposal procedures for silica-containing materials to prevent exposure.
- Implement regular cleaning and maintenance of tools and equipment to minimize dust buildup.
- Provide training and education on silica dust hazards and safe work practices for all workers involved in quartz fabrication.

Disclaimer

This information is intended for use by qualified individuals with the working knowledge and skill of a technical application who are well-versed in fabrication and responsible for their work's quality, workmanship, safety, and reliability. Electric Mirror does not assume any responsibility for the fabrication's design, safety, or workmanship when completed by third parties.