



### **Installation Guidelines**

The best mirror job is one that is not only striking in appearance but one that was trouble-free during installation. Proper techniques, carefully and professionally employed can virtually guarantee this kind of result. To help ensure the best results read and follow these tips for professionals:



- Always use gloves when handling any mirror to prevent damage to the face or backing from skin-borne salts and chemicals.
- Whenever possible, layout a mirror installation prior to taking it to the job site – that way any errors in cutting or sizing can be caught and fixed immediately and no excessive handling will occur.
- Never install mirrors on new plaster, new masonry or freshly painted walls without proper sealing. Also do not install in construction areas when airborne solvents and heavy-duty cleaners are in the air.
- In humid climates wait until the air-conditioning is operating before installing mirrors.
- Never install mirrors outdoors without additional engineered protection for the backing of the mirror.
- Set mirrors off the wall with an open air space behind to provide ventilation for the backing whenever possible.
- If mastic must be used be sure it is approved for mirror use. Mechanical fastening devices should always be used with mastic. This can help prevent injury or damage from the mirror in the event of the mastic failing.
- Be certain that the room or space in which the mirror is to be installed is properly ventilated during and after installation.
- Never permit edges of the mirror to be exposed to "puddling" conditions such as on back splashes.
- Be sure there are adequate tolerances between installed mirrors to avoid later problems as the building settles.
- Mirrors should be one of the last items installed in new construction after final cleanup.



### ***Shipping, Receiving and Storage of Mirror***

Every time a mirror crate or an open mirror is moved there is a potential for damage. Therefore, the key to successful handling is to keep these movements to a minimum. Plan your storage in an efficient manner. Use proper handling techniques and equipment. Review the following suggestions for best practices.

- The very first important step in maintaining mirror integrity is to check your shipments on arrival.
- Be sure that mirror storage areas are dry, free of chemical fumes, away from high heat sources such as steam or water pipes, and the area is adequately ventilated.
- Unpack mirrors as soon as possible to allow moisture by condensation to dissipate especially if shipping exposed the mirrors to temperature changes.
- Store mirrors vertically, do not pull mirrors out of shipping cases by the ends, and do not lay mirrors flat.
- Do not store mirrors out of doors or in unheated areas because of the excessive expansion and contraction caused by changes temperatures.
- Store mirror cases off the floor and away from walls to assist with proper ventilation and prevent water damage to the bottom of the cases. Never store mirrors on uneven surfaces since this can lead to stresses and strains that can lead to cracks on the surface or in the backing.
- Protect mirrors and cases from falling objects since even a small object can cause cracks and ruin a mirror.
- Rotate mirror stock – many mirror experts believe that stock should be "aged" for a week to cure the backing.
- Be certain that handling equipment is strong enough to handle the weight of the mirror.
- Do not ship partially unpacked mirror cases without properly repacking.
- Should mirrors become spattered or come in contact with any elements they should be washed with warm water and dried with a soft rag.

### ***Fabrication of Mirror***

It is important for professionals to take care during every step of fabrication to maintain the integrity of the back and edges of a mirror. Any major damage to these two areas results in a worthless product. Equally important however is cleanliness in the fabrication shop. Dirt, grit, solvents and other contaminants can





lead to damage not only to the mirror's surface but also to the backing. Some of the following tips also apply to other areas but are worth repeating:

- Always use gloves when handling mirrors.
- Vacuum or sweep the cutting tables with a stiff brush regularly to keep dust down and to eliminate glass grit and particles that can scratch mirrors.
- Do as much fabrication in the shop as possible. This reduces the possibility of on-site damage.
- Locate fabrication areas away from parts of the shop where mirrors could be exposed to solvents, heavy-duty cleaners and other materials that can damage the backing.
- Be sure that mirrors, especially backs and edges, are thoroughly washed after fabrication.
- After fabrication and cleaning of the edges, the glass shop should apply an approved sealant to all edges. This provides the mirror with additional protection from moisture, chemicals or atmospheric penetration of the backing.
- When grinding and polishing edges remember that a wet belt sander is recommended tool. If using dry belts, a recommended belt lubricant can be used but be aware that some lubricants contain chloride contaminants. The best recommendation is the use of clean, fresh water. Also remember to keep the heat generated by sanding and swiping to a minimum to prevent damage to the mirror backing.
- Diamond wheels should always be dressed and maintained in good cutting condition. Set wheels so as not to grind excessively on the paint side and edge grind only in one direction. Diamond wheels should also be used with clean water as a lubricant. If coolant is used, it should be clean, pure and have a pH of close to seven.
- Try to retain at least one factory edge when trimming, preferably at the bottom where the mirror is subject to puddling.
- Do not slide mirror lites one over another. Scratching of the surfaces can and does result.
- Be sure mirrors are inspected before and after fabrication and that there is adequate light in the inspection area.

