



Installation Techniques Designed to Prolong the Life of Flat Glass Mirrors

The reflective surface of a mirror is a thin film of pure metallic silver. Although well protected by paint, the silver film remains vulnerable to corrosion if exposed to chemicals or excessive moisture. Following are some important installation recommendations. Strict adherence to these dos and don'ts will help protect the silver from corrosion and prolong the life of the mirror.

- **Always use gloves** when handling any mirror to prevent damage to the face or backing from skin-borne salts or chemicals.
- **Never install mirrors on new plaster**, new masonry or on a freshly painted wall until dried and/or properly sealed. Also do not install in any new construction area where airborne solvents or heavy-duty cleaners or chemicals 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.
- **The mirrors should have a breathing space** behind them when installed to promote air flow over the back of the mirror and prevent moisture condensation and entrapment.
- **Never install a mirror in contact with a splash board** or sink back. Never permit edges of the mirror to be exposed to "puddling" conditions such as on back splashes. Insist on at least 10mm of space between the bottom edge of a mirror and other surfaces. This will prevent moisture entrapment and permit drainage.
- **Use mechanical means of installation**, such as J-moldings, clips and screws, or framing, in preference to tapes, adhesives, mastics, etc. J-molding should have weep holes. Mirrors should always have a 3mm neoprene setting pad between the mirror and clip or molding used.
- **Use neutral-cure adhesives.** If mechanical means are not acceptable or practical, carefully choose the adhesive system you will use. Be sure adhesive selected is compatible with the

mirror backing. Avoid adhesives containing strong solvents or acids like acetone, toluene, methylene chloride, acetic acid etc. These can severely damage mirror backings.

- **Never apply dollops of adhesive.** When placed against a wall they will flatten to a larger, pancake-size diameter. Perimeters will dry relatively fast, causing solvent or curing additives to be trapped centrally. This can lead both to chemical attack of the mirror and to a detracting from overall adhesive strength.
- **Adhesives should be applied in a straight line** with 10mm to 12mm width beads. Beads should run vertically to allow proper airflow behind the mirror. Caulking gun adhesive application is ideal. It allows for adhesive application without the risk of mechanical contact of mirror backing with trowels, putty knives, etc.
- **Careful cleaning of installed mirrors** is very important to avoid abrasion of the surface or damage to the silver film at the edges. For proper cleaning procedures, please refer to the GANA Mirror Information Bulletin entitled *Proper Procedures for Cleaning Flat Glass Mirrors*. Also be sure to provide cleaning instructions for the new owner or the housekeeping staff after installation.
- **Ventilation is an important consideration** in prolonging mirror life. New owners should be advised of the need for proper ventilation and/or air conditioning in environments of high temperature and humidity.
- **Consult the mirror manufacturer's warranty** for additional installation recommendations or restrictions.

Additional information on mirror products and applications including the Mirror Informational Bulletin - *Proper Procedures for Cleaning Flat Glass Mirrors*, are available on website of the Mirror Division (www.mirrorlink.org) and official website of the Glass Association of North America (www.glasswebsite.com).

The Glass Association of North America (GANA) developed this Mirror Informational Bulletin solely to provide general information as to promote installation procedures that will help prolong the life of flat glass mirrors. The Bulletin does not purport to state that any one particular type of installation practice or procedure should be used in all applications or even in any specific application. The user of this Bulletin has the responsibility to ensure the installation guidelines from the mirror manufacturers are followed and for consideration of applicable building code requirements. GANA disclaims any responsibility for any specific results related to the use of this Bulletin, for any errors or omissions contained in the Bulletin, and for any liability for loss or damage of any kind arising out of the use of this Bulletin.

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