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 3 pages

Product Summary Mirrors - Architectural



Description - Guardian Industries Corp., is the global leader in mirror manufacturing with facilities located throughout the world. All mirrors manufactured by Guardian meet the highest standards of the industry with product conformance to these standards assured by an extensive battery of in-house laboratory testing as well as continuous testing by independent laboratories. True image reflectance with virtually no distortion.

Applications - Guardian mirrors are available on clear glass from 1.7 mm through 6.0 mm, with the capability of producing colored mirrors by applying the mirror coating onto a colored substrate. Colors which may be available are gray, black, bronze, golden topaz, and pink rosa. Typical applications include wardrobe doors, bathroom mirrors, furniture, TV projection screens, display cases, vehicle mirrors, decorative walls, ceiling and pillar covers, exercise rooms and mirrors for dance studios. Guardian Laminated Mirrors provide the benefits of being a safety glazing product with the distortion free attributes of traditional laminated glass.

Limitations - The glazing contractor / installer is responsible for conducting appropriate sealant compatibility tests prior to use when installing mirrored glass. Generally, its recommended that mechanical fasteners be used on all installations. If adhesives must be used that release acetic acid or ammonia like compounds while curing should be avoided. It should be noted that the best results are obtained with a factory or shop cut edge, and field cutting should be avoided to minimize edge deterioration. Glazing guidelines, such as those presented in the Glass Association of North America (formerly FGMA) Glazing Manual should be followed to minimize installation problems. Prolonged exposure to moisture, corrosive chemicals, solvents, solvent vapors and cleaning fluids will cause edge deterioration and silver spoilage. Weep system must be used for all J or C channel frame installations.

Composition & Methods - Guardian mirrors are produced on the latest state-of-the-art equipment. The multi-layered process used to create these mirrors involves initial sensitization of the glass by a layer of tin, which provides silver to glass adhesion. A layer of silver is applied for reflectivity with a third layer of copper added to protect the silver. The mirror is further protected and encapsulated with organic paints which give the mirror its mechanical and chemical durability. At this point the mirrors may be further fabricated i.e. hole drilling beveling and other edge preparation. And with our quality systems registered to ISO-9002 ensuring that Guardian Mirrors provide lasting brilliance and durability.

Technical Conformances - Applicable standards: Federal DDM-0411c "Standard ~~Mirror~~ Specification." Safety applications require conformance to the Consumer Product Safety Commission federal standard 16 CFR 1201 regulates the use of glass and glass products in specified locations, such as doors, sidelights, and shower enclosures. These sections and other safety and quality standards are noted below:

- **GSA FSS DDM-0411c, Mirrors**
- **ASTM C-1036, Flat Glass**
- **ASTM C-1048, Heat-Treated Glass**
- **ASTM C-1172, Laminated Architectural Flat Glass**
- **ANSI Z97.1, "Safety Performance and Methods of Test for Safety Glazing Material Used in Buildings"**