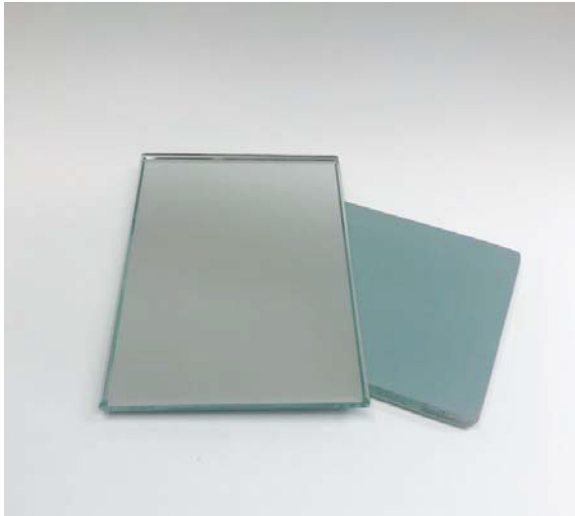


## Copper-Free Mirror



Copper-free mirror is made by thoroughly cleaning annealed glass and sensitizing it with a diluted solution of tin chloride. Silver nitrate is sprayed onto the surface of the glass along with other proprietary chemical configurations. After silvering, a two-coat paint system is applied to encapsulate the formula with low-lead or lead-free solution along with a copper-free paint solution.

The reflectiveness of copper-free mirror is the same as the one of the conventional mirror and is proven to be superior in all accelerated tests such as the CASS (copper accelerated salt spray), saltfog, humidity, ammonia and ferric chloride tests. The possibility of clouding, which is related to potential copper oxidation is also reduced. Clean it with a soft cloth using warm water; do not use any acid, alkali or ammonia cleaners. Never allow the mirror edge to remain wet.

### Benefits of Using Copper Free Mirror

- Excellent resistance to humidity
- Strong performance in accelerated corrosion testing, including CASS and salt spray.
- Higher resistance to a wide range of household chemicals than traditional copper-manufactured mirrors.
- Reduced clouding due to copper oxidation, yielding a superior mirror product.
- Contributes to environmental protection by elimination of toxic products (i.e. Copper, ammonia and lead) during production.
- Improved resistance to aggressive agents in certain cleaning products.

Test Performed	Results for Copper-Free Mirror	Results for Conventional Mirror
Humidity testing by placing mirrors in a chamber for a period of 60 days	Did not cloud at all	Showed clouding to various degrees after a period of less than 5 days
Heat tests at 160° Fahrenheit	Showed NO clouding after 10 days	It was S E V E R E L Y clouded after 4 hours
Ammonia resistance test by being immersed in a 10% ammonia solution	Showed NO paint delamination after a period of 5 days	Mirror delaminated after 3 hours

\*Tests performed by Contractors Wardrobe®

Complies with the following standards:

**GSA FSS DDM-0411c, Mirrors**  
**ASTM C-1503, Silvered Flat Glass Mirrors**

April, 2022