

NOVAL COPPER FREE MIRROR® ----- Meet your aesthetic needs

Description

A “Most modern” Mirror, the most obvious speciality is no copper and lead, Noval copper free mirrors for interior use are manufactured by the conveyor, wet deposition method. Annealed glass is thoroughly cleaned by the application of cleaners and passing contact with oscillating scrub brush units. After the glass is cleaned and rinsed, the surface of the glass is sensitized with a diluted solution of tin chloride. This surface treatment allows for the deposition of copper free. Copper free nitrate is sprayed onto the sensitized surface of the glass along with other chemical configurations. The final outcome is the formation of a uniform copper free layer on the glass.

Once the copper free layer is formed on the glass, methods to protect the copper free layer from oxidation are employed. The new protect $BaCl_2$ is then deposited directly onto the copper free. Super sensitizer can be applied in two ways: chemically or galvanically. Recent technological advances have led to the development of copper free protective films, which also prevent copper free oxidation, Once the metal layers are attached to the glass, they are covered by a protective mirror backing paint. The mirror backing paint protects the metal layers from corrosion and from mechanical scratching, and the paint is Valspar made by Germany, better than Fenzi coated on copper free mirror.

- **Optimum performance**

The new copper free mirror provides superior optical quality With significantly enhanced durability

- **Concern for the environment**

Noval-evolution’s manufacturing process is more environmentally friendly, no copper, no lead.

- **All the benefits of a MIRROR**

Noval copper free mirror transforms internal spaces with radiance and spectacle.

Applications

Enhancing and volume space

With its ability to capture and reflect light, Noval copper free mirror increases the feeling of space and enhances interiors:

- In any in the home, especially
- Apartment blocks: entrance halls, lifts or landing
- In shopping centers and retail stores
- In bars, restaurants, clubs, theatres and cinemas
- In public buildings, offices or clinics and hospitals.
- In sports centres, leisure facilities and dance studios

Noval copper free mirror can be used:

- As framed or unframed mirrors
- For paneling on walls , doors or pillars
- In furniture(tables, cupboard door, shelves)



- For signage

For any application, Noval copper free mirror can be customized by sandblasting, acid etched, edging, Engraving, silk-screened and completely suitable for Processing, edgeworked, such as: Beveled, C-edge, Straight, drill, grooved.....

Advantages

Technological innovation at the service of customers

- ***Increased durability***

Noval copper free mirror lasts at least three times longer in tests Simulating the natural ageing of mirrors. It substantially exceeds the durability requirement Defined in standard EN 1036 and ISO9001-2000

- ***Superior optical quality***

In the absence of copper, the occurrence of clouding is eliminated and haze is minimized

- ***More environmentally friendly***

There is a significant resulting from the manufacturing process, in particular Ammonia, (required for treating the copper),and during the downstream stages of transformation, thank to the protective paint being lead-free . Noval copper free mirror is compatible with more silicones and adhesives than standard mirrors.

- ***Easy to install***

Noval copper free mirror is compatible with more silicones and adhesive than standard mirrors. Improved resistance to aggressive agents in certain cleaning products.

- ***Easy to process***

The lacquer is harder, facilitating cutting and edgeworked.
Readily available from stock
Cost control, due to ease of installation.

Copper free mirror description

An innovative, environmentally friendly manufacturing process

- Noval copper free copper free mirror is manufactured without copper or lead using a new, more environmentally friendly industrial process.
- The mirror is created by depositing a layer of copper free mirror on the glass, Which is then treated and covered with one or more coats of highly resistant Protective paint.
- Thanks to this new process, polluting waste products are reduced during waste products are reduced during
- Manufacturer (in particular ammonia), and the mirror is much easier to recycle.
- The manufacturing process also improves the optical qualities and durability of the mirror.



- All aspects of the performance of Noval Copper free copper free mirror conform to standard EN 1036

Range

A wide range, meeting all requirements

- **Colours**

Noval copper free mirror is available in clear, bronze, green, grey and pink. For certain special applications, for example daylighting devices, Noval copper free mirror can be manufactured on extra-clear glass Diamant (for higher light reflectance)

- **Dimensions:**

3660/3300/3210/3050*2250*2134mm

For more information on package, please refer to the Noval copper free mirror specification:



Thickness(mm)	2	3	4	5	6	8
Clear	•	•	•	•	•	•
Bronze		•	•	•	•	•
Grey		•	•	•	•	•
Pink		•	•		•	
Green			•		•	
Black			•		•	•

Processing

Adding value with edgeworking and customization

- Noval copper free mirror is suitable for cutting into regular and more unusual shapes.
- After cutting ,it can be drilled and edge-worked (bevel, arises),like traditional mirrors.
- The front surface of the mirror can also be customized be means of sandblasting or engraving, to create patterns, logos, and graphics.

Installation and fixing guidelines

Noval copper free mirror can be held in place with screw fixing, channel glazing or adhesive glazing using double –sided adhesive pads, or glazing and silicone(neutral,alcohol-based or oxime-based only).

- Ensure there is sufficient space Between the supporting wall and the mirror to provide good ventilation (5mm space if the mirror is less than1-metre tall ,10mm if the mirror is taller).
- When fitting a run of mirrors side by side, provide a minimum space of to 2mm between them.
- Place the mirror against a supporting wall, which is clean , dry and stable (on old wallpaper, paint or plaster), free of acidic and harsh substances.

- **Glazing into a frame**

Care must be taken to ensure that the frame and glazing channels are completely Clean and dry .position the mirror on hard plastic blocks at least 3mm thick in order to life The mirror and to avoid contact with water , which could collect in the frame.

- **Screw fixing**

Use screws of appropriate dimensions. Avoid direct contact between the glass and the metal By using plastic spacers and washers. attach the mirror by applying pressure ,but without placing any stresses on it .

- **Adhesive fixing**

The glue or adhesive strips used must be certified as being compatible with mirrors .they must always be applied vertically. Always follow the instructions of the adhesive manufacturer



Avoid positioning the mirror too close to a source of heat, such as lights and heating-elements .excessive direct heat could damage and break the mirror.

To avoid optical distortions the mirror must be installed absolutely flat, against a flat support surface, without any point-stresses

- **Cleaning**

Do not use harsh product(acidic, very alkaline or absolutely flat, Without any point –stresses. Ensure that no residue from the cleaning product is life around the edges.

- **External glazing**

Provide a mounting , which protects the rear surface and edges from the weather, and which permits the air to circulate behind the mirror.

- **Safety**

In all cases Noval copper free mirror must be installed in accordance with current national regulations .certain locations may require a safety mirror .

For more information, pls contact Noval Glass:

Tel: 0086-532-8275-1111 Fax: 0086-532-8275-5222

Website: www.novalglass.com or Contact: service@novalglass.com