

FAQs

SCHOTT MIRONA® – Semi-transparent mirrored glass

General Introduction

1. What are the main features of SCHOTT MIRONA®?

- SCHOTT MIRONA® magically transforms itself from a mirror to a transparent window. A unique combination of reflection and transmittance enables an ingenious presentation of space and objects.
- Available on various types of materials (e.g. on the basis of extra-clear, low-iron float glass or grey glass)
- Available in five unique coatings. Mirroring intensity varies depending on the degree of reflection:
 - MIRONA® Standard
 - MIRONA® Beamsplitter
 - MIRONA® High Reflective
 - MIRONA® High Reflective Grey
 - MIRONA® High Reflective One side coated
- MIRONA® Beamsplitter is specially designed for high-resolution displays
- The coating is highly chemically resistant
- Transforms from a transparent display to a mirror without any electricity
- Maintenance-free!
- Easier to clean than competitive products
- Diverse processing options (e.g. laminated safety glass, insulating glass, thermally toughened)

2. The glass recommended for what kinds of application?

- Aesthetic interior styling (design elements such as partition walls, wall paneling or design objects)
- As silver mirrors with advanced functionality (e.g. consumer electronics, cover panels for use in televisions and projection screens, etc.)
- Solutions for the lighting industry as decorative and functional light covers etc.
- MIRONA® Beamsplitter is an excellent product for use in teleprompter applications.

Applications

3. When should SCHOTT MIRONA® Standard be used?

MIRONA® Standard with 34 % reflection is your entry into the magical world of mirroring glass from SCHOTT.

4. When should SCHOTT MIRONA® Beamsplitter be used?

MIRONA® Beamsplitter delivers 36 % reflection on one surface; the other surface is coated with an anti-reflective coating. This avoids ghost images from the backside of the glass.

5. When should SCHOTT MIRONA® High Reflective be used?

If higher mirroring is required, use MIRONA® High Reflective with 55 % reflection.

6. When should SCHOTT MIRONA® High Reflective Grey be used?

The grey glass has a high-reflective coating on both sides to absorb more light which delivers a darker background and creates higher reflection.

7. When should SCHOTT MIRONA® High Reflective One side coated be used?

MIRONA® High Reflective One side coated should be used when laminated safety glass or lamination is required. This avoids reflections from the backside/PVB side.

Installation

8. Does SCHOTT MIRONA® have the same reflection color rendering as a standard mirror?

No, the reflected image appears a bit darker than it is. This is because standard mirrors use a silver layer and, in contrast to SCHOTT MIRONA®, therefore normally have more than 90 % reflection.

9. How can SCHOTT MIRONA® be installed in front of a display/TV?

MIRONA® should be integrated into a frame. The frame of the display is normally hidden by a passe-partout to conceal the adhesive joint between the frame and glass. The construction is installed with a space between the display and the glass. This space and the ambient lighting conditions affect visual results.

Technical Information

Processed Glass/ Architecture

10. With respect to SCHOTT MIRONA® Beamsplitter, where should the anti-reflective side be?

The AR side should normally be on the non-reflective rear side to avoid reflection from the rear. Reflection then occurs only from the front.

11. How do I avoid double images with SCHOTT MIRONA®?

To avoid double images when using MIRONA® Beamsplitter, the high-reflective side needs to be placed facing the user; the anti-reflective side should face the display. An anti-glare display (non glossy and/or matt) is recommended to avoid reflection from the display itself.



MIRONA® High Reflective
Strong reflection from the frontside,
reflection from the backside.



MIRONA® Beamsplitter
Strong reflection from the frontside,
no reflection from the backside.

12. How can I conceal unwanted items around the screen (for instance the TV brand, etc.)?

- Either by putting a passe-partout behind the MIRONA® glass, for example cardboard or foil (the most simple and flexible solution)
- or by printing/painting the glass to reduce the screen surface. IMPORTANT: Please make sure that the color of the masking or print/paint matches the color of the screen when it is switched off!

13. How can I avoid seeing a difference between the color of the passe-partout and the screen when the screen is turned off?

By optimally matching passe-partout color and the display color when switched off, and by leaving as little space as possible between MIRONA® and the screen.

14. How can we retain the functions of the remote control on the screen if the IR sensor is concealed?

By using a material (interlayer or print/paint) which is transparent to infrared signals. Alternatively, leave a small opening in the print and position it in front of the IR sensor.

Processing

15. Which SCHOTT MIRONA® types can be laminated?

In principle, all types of MIRONA® can be laminated. We can provide you with more information on the test reports from the German testing institute Friedmann and Kirchner on the lamination of MIRONA®. Using PVB or EVA film as an interlayer fulfils EN 12543-2 requirements. Laminating MIRONA® makes sense when, for example, a MIRONA® Beamsplitter with VSG properties is to be produced by combining MIRONA® High Reflective One side coated (level 1) and AR One side coated (AR at level 4).

16. Is it possible to print on a coated surface?

Yes, it is. The color shade may be slightly affected by the coating.

17. What kind of material is recommended for the passe-partout?

Cardboard, foil, organic and ceramic printing is recommended.

18. What kind of printing can be applied to SCHOTT MIRONA®?

Ceramic and organic printing can be used with MIRONA®. The technology for applying the ink (screen printing, digital printing, painting) doesn't really matter.

19. Which SCHOTT MIRONA® types can be thermally toughened?

All types of MIRONA® can be thermally toughened. Compared to MIRONA® Standard, MIRONA® High Reflective has a more complex layer structure, which means that only tempering furnaces with multi-zone temperature control and temperature monitoring are suitable for toughening. During thermal toughening, the reflective color may change slightly, which cannot be avoided due to the process.

20. Can SCHOTT MIRONA® be used outdoors?

All types of MIRONA® (except MIRONA® Standard) are suitable for outdoor use. They have been tested at the Institut für Fenstertechnik (ift) in Rosenheim, Germany according to ISO 1096-2 and is classified as class A. DIN EN 1096-2 describes the testing and durability of coated glass in the construction industry.