

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?

Only MIRONA® Standard can be thermally toughened. MIRONA® High Reflective and MIRONA® Beamsplitter can also be thermally toughened using modern convection furnaces.

#### 20. Can SCHOTT MIRONA® be used outdoors?

No, MIRONA® cannot be used outdoors. Laminated MIRONA® High Reflective One side coated with the coating facing the interlayer (and/or to the inner side) could serve as an alternative. The reflection of this setup is approx. 25%.

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