MIROX SANILAM®

TECHNICAL DATA SHEET

VERSION 3.0 – MAY 2017

1.GENERAL DESCRIPTION

Mirox Sanilam® is a double-sided mirror highly resistant to humidity for any interior application where humidity can cause mirror corrosion. It comprises a laminated assembly of two Mirox® MNGE mirrors bonded together with an adhesive (50µ thick).

The Mirox MNGE is an ecological product as it does not contain any copper and contains very low lead.

2. TYPICAL USE

Any interior application where humidity can cause mirror corrosion. We can highlight bathrooms, saunas, swimming pools, etc.

3. BENEFITS

3.1 Humidity resistance

The major advantage of Mirox Sanilam® is its ability to resist in very harsh environments. But Mirox Sanilam® cannot be partially or fully submerged into water.

3.2 10-year warranty

AGC guarantees, to the final customer, Mirox Sanilam® against corrosion during 10 years, starting from the date of delivery. Warranty is given by AGC only on final processed mirror done by a Certified Processor. Certification process is described in AGC document called "Mirox Sanilam Warranty Procedure". This warranty is not valid for applications in aggressive environments (e.g. seawater or salt water).
For more information ask your local AGC representative or visit www.yourglass.com.

3.3 Easy cutting

Thanks to the technology used, it is easy to cut this double sided mirror glass on a cutting table for laminated glass.

4. WARRANTY

It is important to note that AGC guarantees the final product, even though the processing might have been done by a Certified Processor (C.P.).

The C.P. of Mirox Sanilam® have to declare to AGC that they process the glass according to AGC's Processing Guide. This is controlled by an AGC certification procedure. The certification is granted for a period of 6 months and needs to be renewed (see point 4.3).

4.1 The testing

AGC will perform the following tests:

- The CASS test following ISO 9227 is executed 5 times (i.e. 600 hours totally).
- After the test, the edge corrosion is compared to the reference sample that has undergone the same test.
- If the corrosion is comparable to the reference sample (positive test), the warranty will be granted. If not, it will be refused.

4.2 The granting of the warranty

In case the tests are positive, the authorization to grant the warranty will be given to the processor. The C.P. will then receive the General Conditions of the Corrosion Warranty.

4.3 Extension of the warranty

Every six months, the Certified Processor has to send, for each type of edging for which the authorization to grant the warranty is requested, two new samples to AGC for a new test. In case no samples are sent, the authorization will not be renewed.

5. NORMATIVE REFERENCE

Mirox products conform to:

- EN 1036-1 - Glass in building – Mirrors from silver-coated float glass for internal use – Part 1: Definitions, requirements and test methods
- EN 1036-2 - Glass in building – Mirrors from silver-coated float glass for internal use – Part 2: Evaluation of conformity/Product standard

All Mirox products are CE-marked following EN 1036-2; CE-Marking declarations are available from www.yourglass.com/CE.

All Mirox are produced in factories being ISO 9001 certified.

6. DIMENSIONS

- Thickness: 3 + 3 mm
- Dimension: 225 x 321 cm

7. CHEMICAL COMPOSITION

7.1 Mirox MNGE

The basis glass used for Mirox production is float glass conform to EN 572-1 & 2. The properties of the float glass are listed hereunder.

The EN 572-1 defines the magnitude of the proportions by mass of the principal constituents of float glass as following:

SiO_2	69 to 74%
Na_2O	10 to 16%
CaO	5 to 14%
MgO	0 to 6%
Al_2O_3	0 to 3%
Others	0 to 5%

7.2 Glue/Adhesive

The adhesive used to glue the two sheets of Mirox MNGE together is a polyacrylic adhesive.
Total thickness: 0,05mm

8. MECHANICAL PROPERTIES

- Weight (at 18°C): ρ = 2 500 kg/m³
- Density: 2,5
- Young's Modulus of float glass (modulus of Elasticity): E = 70 000 N/mm²
- Poisson Ratio: μ = 0,2
- Shear Modulus: G = E/ [2 (1+v)] ≈ 29 166 N/mm²
- Knoop Hardness: 6 GPa
- Mohs Hardness: 6
- Characteristic bending strength: 45 N/mm²

9. LIGHT PROPERTIES

The light properties are calculated using spectral measurement that conforms with EN 410 standard.
The light reflection (LR -ρv) measured in accordance with EN 410 shall be at least: 86 % for mirrors made from clear float with a thickness of 3mm.

10. TEMPERATURE RESISTANCE

Mirox Sanilam® cannot resist very high temperatures. The maximum temperature is 80° Celsius.

11. DURABILITY OF MIROX SANILAM®

Mirox Sanilam® as Mirox products are tested following the durability method described in EN 1036-1. Mirox products resist to more severe requirements than the requirements of EN 1036-1.

	Criteria EN 1036-1 for standard mirrors	**Performances of Mirox Sanilam ®**
Neutral salt spray test: - Maximum corrosion around the edge	1,0 mm	0,05 mm
Copper accelerated acetic acid salt spray test: - Maximum corrosion around the edge - Maximum number of spots (diameter between 0,2 and 3 mm)	1,5mm 2 (accepted provided ≤0,2mm)	0,25mm (after 5xCASS) ≤ 1 (accepted provided ≤0,2mm)
Condensation water test: - Maximum corrosion around the edge - Maximum number of spots (diameter ≤ 0,3 mm)	0,2 mm 1	0,05mm 0

12. TOLERANCES ON DIMENSIONS

The same tolerances as for the float used as support of Mirox Sanilam® apply.
Note that, when recutting a DLF into cut-sizes, a loss of 2 cm around the edges of the DLF has to be taken into account.

12.1 THICKNESS

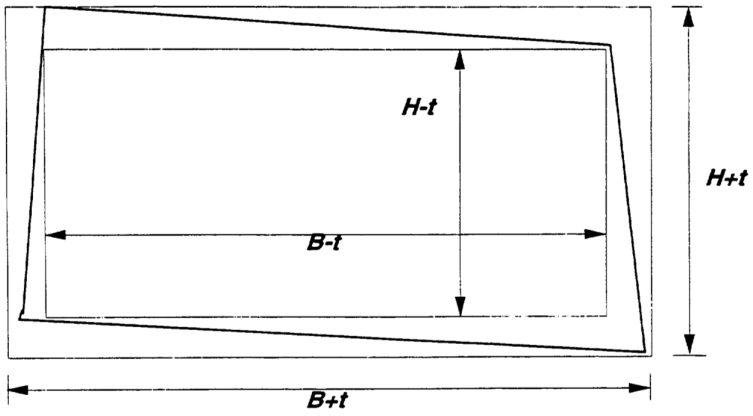
The actual thickness shall be the average of four measurements, taken to the nearest 0,01 mm, one taken at the center of each side.
The actual thickness rounded to the nearest 0,1mm shall not vary from the nominal thickness by more than the tolerances for 3mm single sheet:

- Minimum 5,6mm
- Maximum 6,1mm

12.2 LENGTH AND WIDTH

Due to the fact that 2cm around the edge have to be cut when recutting, Mirox Sanilam® has no determine length and width tolerances.

The single mirrors used in the composition of Mirox Sanilam® respect length and width tolerances for this product:
The tolerances on nominal dimensions length H and width B are respectively ± 3 mm and ± 2 mm.



The limit of squareness is described by the difference between diagonals. The difference is maximum 5 mm.

13. PROCESSING

Processing	Possible?	Remarks
Rectangle and round shapes	Yes	
Drilling	No	Not guaranteed
Edging	Yes	No round “C” profile
Bevels	Yes	No round “C” profile

14. MAINTENANCE AND CLEANING

The maintenance and cleaning of Mirox Sanilam® must be done as for ordinary mirrors : no aggressive products may be used; only clean water must be applied. After cleaning, the edges must be dried. For more information follow “Cleaning and Maintenance Guide - Decorative glazing” available on www.yourglass.com.

15. QUALITY REQUIREMENTS

The quality requirements of Mirox Sanilam® respect all quality requirements of AGC Mirox. For more information see:
http://www.yourglass.com/agc-glass-europe/be/en/ecological_mirrors/mirox_mnge/brand_description.html

16. SAFETY

Mirox Sanilam® is NOT a safety product.

17.HEALTH ASPECT

AGC puts great effort in developing products that preserve our indoor air quality. Mirox products show very little indoor emissions of Volatile Organic Compounds (VOCs), including very low levels of formaldehyde.

18. OTHER RELATED DOCUMENTS

Following documents are also available from www.yourglass.com:

- ✓ Processing Guide
- ✓ Cleaning and Maintenance Guide for Decorative glazing
- ✓ Glazing Instructions – Traditional Setting
- ✓ CE-Marking declarations