#### TWIN-WALL POLYCARBONATE SHEET

# **WARRANTY INFORMATION**

The ten (10) year limited warranty applies if the sheet manufactured by POLYROOF S.A.C. is installed, maintained, and cleaned as per the recommendations included in this warranty. It is important to consider that the twin-wall sheet is designed for weather resistance and does not provide any resistance to abrasion.

This warranty does not cover reinstallation costs or any other direct and indirect loss that may result from improper handling of the sheet. This warranty applies to all standard sheet weights with thicknesses of 4, 6, 8 and 10mm.

#### **YELLOWING**

The twin-wall sheet shall not increase its yellowing degree by more than 15% according to ASTM D-1925 for a period not exceeding more than ten (10) years as per the purchase date with Polyroof S.A.C.

#### LIGHT TRANSMITTANCE

The twin-wall polycarbonate sheet shall keep its transparency for ten (10) years according to ASTM D-1003 and shall not vary more than 10% for a period not exceeding ten (10) years from the date of purchase with Polyroof S.A.C.

## **BREAKAGE**

All the twin-wall polycarbonate sheets are warrantied against hail except for breakage from impacts caused by other intentional and unintentional means. Hail breakage is defined, for purposes of this warranty, for at least five (5) perforations at different points on the surface of the twin-wall sheet produced by 10 impacts during the hail-simulation test, which is simulated below.

## Hail-simulation test

The 6.6 polyamide pellets with a 20mm-diameter (approx. weight of 4.5 g) are projected on the surface of the twin-wall polycarbonate on its side exposed to the sun at a speed of 21 m/s, which corresponds to kinetic energy of one (1) joule, at room temperature.

### Note

Based on experience, a natural hail with a diameter of 23 mm has an average impact speed of 17 m/s and kinetic energy of one (1) joule. Moreover, a study on hailstones has established that the average frequency of hailstones over 10 mm in diameter is only 2.9%. Larger hail is even less frequent. We should be aware that all glazing and outdoor advertising materials are subject to irreversible deposits of atmospheric elements and can be expected to show signs of opacity. Having a proper and regular cleaning will decrease but not eliminate this process.

# **CLEANING PROCESS**

- Apply warm water to the surface, removing dust and dirt residues.
- Soap the surface with mild soap and warm water. If the surface is excessively dirty,
  you should use a soapy with hot water. It is recommended to use neutral soap that
  does not contain abrasives or solvents. Use a sponge or cloth and wash gently. Do
  not scrub; it may damage the surface of the sheet.

• Finally, rinse and dry with a soft cloth avoiding leaving water stains on the sheet surface. In case of having oil stains on the surface, it can be removed with alcohol or gasoline followed by abundant rinses with warm water and soap.

# **INSTALLATION**

The twin-wall polycarbonate sheet has a coextruded UV-protected layer on one side. This side should always face outwards or towards the light source. If installed on the opposite side, the sheet will show yellowing and premature aging, causing irreversible damages to the sheet surface.

In order to identify the UV side, damp a cloth with toluene and quickly touch both surfaces; the side without UV protection will bleach and fog on the surface, while the other side will resist the effects of toluene longer.

## PRODUCT LIABILITY CLAUSE

This information and our technical advice on applications – whether verbal, written or based on tests – are given in good faith and without commitment. This also applies to the third parties' property rights that may be affected.

The advice will not release you from your obligation to check the information received by us – especially that contained in the safety data sheets and technical information – and test our products as to their suitability for the intended procedures and purposes. The application, use and transformation of our products and those manufactured by you based on our technical application advice, are beyond our control and; therefore, exclusively at your own risk.

Our products are sold in accordance with our general terms and conditions of sale and supplies in the version in force on the respective date. Any twin-wall that presents failure in its performance as per the specifications described in this warranty, shall be restored by subtracting from one hundred percent (100%) from the sheet value, a zero point eight percent (0.8%) monthly accrued for the first 10 years product service, elapsed from the date of invoice issuance to the claim date.

