

Prime Instruction: Quality Assurance Instruction **Handling, Storage, and Installation protocols** **OSG Armored Glass**

General conditions:

1. Before assembly to the frame and/or mounting to the vehicle:
 - a. Store the Transparent Armor (TA) in the original crates provided by OSG.
 - b. Store the products vertically until assembly is done.
 - c. Storage area must be shaded and dry.
 - d. Optimal storage conditions for lamination products are:
 - i. Low humidity - lower is better. Maximum relative humidity of 55% in the storage area.
 - ii. Temperature around room temperature (25°C, 77°F). Temperature above 35°C (95°F) should be avoided.
 - e. Avoid direct sun light radiation.
 - f. Avoid rapid temperature changes.
 - g. Avoid all contact with water or other liquids.
 - h. Keep the TA in a hazards gas free environment.

2. Critical notes to follow while mounting assembled armored glass to vehicle:
 - a. Before opening the crates, check that no damage occurs during transit and storage and that the crate is in its original state without any damage before opening.
 - b. Flatness of frame and/or vehicle mounting area must not go over 2mm per 1meter.
 - c. Screws tightening order - The screws shall be tightened by Inside-out criss-cross method in order to reduce stress between the frame (glass) and the vehicle.
 - d. Tightening torque must be taken into consideration according to mounting method.

3. After mounting to the vehicle and during storage/operational mode of the vehicle:
 - a. Exposure to direct sunlight: should be avoided whenever possible or at least minimized. Vehicle cabs should be covered with an insulating material that prevents direct exposure to sun radiation and prevents/minimizes heating of windows. Covers must breathe to eliminate buildup of heat and moisture.
 - b. Vehicle must be ventilated constantly, in order to prevent temperature build-up and a consequent Greenhouse Effect inside the vehicle. In addition to thermal stress on the PC, high temperatures inside the cabin can intensify evaporation of gases from the plastic parts adjacent to the screen, such as the dashboard. These plastic fumes have been proven to damage PC.

Painting:

In case of painting the vehicle with the mounted glass on it, the drying temperature must not exceed 80 °C (176°F).

In case of painting an assembled glass in its frame (not mounted to the vehicle), there is a risk for also chemical attack on the PC. In that case, OSG must be informed in advance.

The main materials which must not come in contact with the Polycarbonate are:

1. PVC
2. Halogens
3. Ketones
4. Concentrated Acids
5. Aromatic hydrocarbons
6. Amines
7. Esters

In order to be sure that your chosen materials won't attack the Polycarbonate, OSG needs to receive samples for compatibility testing. We recommend sending several kinds of materials so at least one will be suitable.

OSG must approve any material that comes in contact with the Polycarbonate

Cleaning:

Inner face of glazing ("Safe Side") is made of Polycarbonate which is prone to scratching. Contact with this side should be avoided or minimized.

Glass-Polycarbonate glazing is delivered with a white / clear sheet protecting the PC side. Do NOT remove this sheet until glazing has been completely installed and is ready for use. If portions of the protective sheet must be removed for proper installation, carefully remove the edge of the sheet where required and replace it against PC whenever possible.

Do not adhere any sticker or label to the polycarbonate surface of the TA.

Do not clean OSG products with detergents and chemicals. Use only Isopropyl Alcohol 99% or clean water for cleaning. Use soft clean cloth.

Do not use sharp tools for cleaning.

Do not scrape the surface of PC with any tools or objects for any reason.

Do not use any cleaning substances of the inner equipment of the vehicle such as dash board cleaners.

Important: Failure to strictly follow the above instructions is likely to result in damage to the window and the warranty will therefore not cover any product / part which has been subjected to any deviation of the above instructions.