

Product Handling Information Sheet

Exolon® AR – PC AR (abrasion-resistant), polycarbonate solid sheet with two-sided scratch-resistant coating

Condition on Delivery and Storage

Condition on delivery	Both sides covered with protective film; the abrasion-resistant coating is factory-applied and ready for use.
Storage	• Store dry, dust-free and lying flat on a level, clean surface • Protect from direct sunlight, UV radiation and heat sources • Leave the protective film on the sheet until immediately before installation • Avoid strong temperature fluctuations and condensation forming under the film

Weight and Format

Areal weight	approx. 1.20 kg / m ² per mm of thickness (at a density of 1.20 g / cm ³), e.g. 3.6 kg / m ² at 3 mm or 12.0 kg / m ² at 10 mm thickness.
Standard size	3000 × 2000 mm, thicknesses 3–15 mm.
Lifting aids	For large-format or thicker sheets, plan for handling by two people or with suitable lifting/vacuum aids due to the higher areal weight.

Transport and Handling

Transport	• Transport sheets upright, do not push or drag them across their face • Protect edges and corners with interleaving when stacking • Handle only with clean, lint-free gloves
Handling	• Do not drag sheets across rough, sandy or dirty surfaces • Avoid point loads and localised force application • When using vacuum lifters, ensure suction pads are clean

Machining

Sawing, routing, drilling	Possible with standard tools for thermoplastics; use sharp cutting edges suited to plastics and provide adequate cooling and chip removal.
Machined edges	Edges are uncoated after cutting and therefore not abrasion-resistant; provide additional protection if required.
Thermoforming / hot bending	Not permitted – the abrasion-resistant coating cracks or delaminates under hot forming. Use uncoated Exolon® GP for applications requiring forming.
Bonding and joining	Check compatibility of the adhesive with the coating before use; follow the adhesive manufacturer's instructions.
Edge polishing	Not required for function; possible for appearance on uncoated cut edges only. Do not polish or sand over the coating itself.

Installation and Glazing

Thermal expansion	With a coefficient of linear expansion of 0.065 mm / (m·°C), allow sufficient expansion clearance in frames, rebates and clamping strips; size rebate dimensions to the sheet size and the expected temperature range.
Holes and fixing	Drill fixing holes oversized or as slotted holes so the sheet can move freely with temperature changes; avoid rigid, play-free screw fixing.
Sealants	Check compatibility of sealants and adhesives with the coating before use; incompatible, plasticiser- or solvent-based silicones can attack the coating and the base material.

Cleaning and Care

Recommended cleaning	• Mild soap solution or a commercial plastics cleaner with a soft cloth or sponge • Rinse with clean water and dry with a soft, clean cloth • Clean without strong pressure and without circular scrubbing motion
Do not use	• Abrasive cleaners, scouring pads or rough/dusty cloths • Solvent-based, alkaline or ammonia-based cleaners (e.g. common glass cleaners) • Dry wiping over dust or sand deposits (risk of scratching despite the coating)

Safety Information

Machining dust	Extract plastic dust generated during sawing, routing or drilling directly at source and ensure adequate ventilation of the work area.
Personal protective equipment	Wear safety glasses and gloves during machining.
Electrostatic charge	Cleaning or wiping with dry cloths can build up an electrostatic charge on the surface, attracting dust; prefer the damp cleaning method described above.

In Case of Damage

Scratches on the coating	The abrasion-resistant coating cannot be locally repaired; if scratches are visible on the coating, the affected sheet must be replaced.
Cracks or chipping at edges	Inspect the affected area, rework professionally if required or replace the component; address sharp-edged damage promptly to prevent crack propagation.

Packaging, Labelling and Disposal

Packaging	Factory packaging on pallets with edge protection; keep the pallet packaging on until immediately before processing to avoid transport damage.
Labelling	Material designation, thickness and batch are indicated on the protective film; check against the delivery note before further processing.
Offcuts and disposal	Collect offcuts and remnants separately as polycarbonate and send them for plastics recycling; observe local disposal regulations.

Pre-Processing Check

Visual inspection	Before cutting, check the sheet for visible transport damage, scratches on the coating, and that the protective film is complete.
Size and batch check	Compare thickness, format and batch number with the order or delivery documents before the sheet is cut to size or further processed.

Liedtke
Kunststofftechnik.de