

# ABS-PMMA

Co-Extruded ABS + Acrylic (PMMA) · Sanitary Grade

**PMMA SURFACE CAP**

## Scratch + UV

High-gloss acrylic face

**CHARACTERISTICS**

- PMMA acrylic cap — scratch & UV resistant
- High-gloss, easy-clean, hygienic surface
- High impact strength, even at sub-zero (ABS)
- Excellent deep-draw thermoformability
- Chemical-resistant; corona-treated backside

**APPLICATIONS**

- Bathtubs, shower trays & cabins
- Sinks, fonts & sanitary ware
- Refrigerator liners & components
- Automotive & machinery exterior parts
- Furniture facades & fountains

**COMPLIANCE** Co-Extruded PMMA/ABS · UV-Protected Cap · Corona-Treated Back · RoHS · REACH SVHC · ISO 9001:2015

**TYPICAL PROPERTIES**
*All values are typical · ISO test methods · as-extruded, ageing not included*

| PROPERTY               | TEST METHOD | VALUE             | UNIT              |
|------------------------|-------------|-------------------|-------------------|
| <b>MECHANICAL</b>      |             |                   |                   |
| Tensile Yield Strength | ISO 527     | <b>35</b>         | MPa               |
| Elongation @ Break     | ISO 527     | <b>3</b>          | %                 |
| Flexural Modulus       | ISO 178     | <b>2100</b>       | MPa               |
| <b>IMPACT · CHARPY</b> |             |                   |                   |
| Unnotched @ 23 °C      | ISO 179     | <b>15</b>         | kJ/m <sup>2</sup> |
| Notched @ 23 °C        | ISO 179     | <b>10</b>         | kJ/m <sup>2</sup> |
| Notched @ -30 °C       | ISO 179     | <b>3</b>          | kJ/m <sup>2</sup> |
| <b>PHYSICAL</b>        |             |                   |                   |
| Density                | ISO 1183    | <b>1.075</b>      | g/cm <sup>3</sup> |
| Water Absorption       | ISO 62      | <i>On request</i> |                   |

| PROPERTY            | TEST METHOD | VALUE     | UNIT |
|---------------------|-------------|-----------|------|
| THERMAL             |             |           |      |
| HDT @ 1.8 MPa       | ISO 75-2    | 96        | °C   |
| Service Temp (max)  | —           | 75 - 80   | °C   |
| Short-Term Heat     | —           | 90 - 100  | °C   |
| Autoignition Temp   | —           | 350       | °C   |
| SURFACE             |             |           |      |
| Cap Layer           | —           | PMMA      |      |
| Surface Gloss       | —           | High      |      |
| Backside            | —           | Corona    |      |
| CHEMICAL RESISTANCE |             |           |      |
| Acids, Alkalis, Oil | —           | Resistant |      |
| Esters, Ketones     | —           | Limited   |      |

**NOTES**

Two-layer co-extruded sheet: an impact-resistant PMMA (acrylic) cap over an ABS core. The acrylic face gives scratch resistance, UV protection, high gloss, chemical resistance and a hygienic, easy-clean surface; the ABS core gives high impact strength down to sub-zero temperatures and deep-draw thermoformability. Tests per ISO methods: tensile ISO 527-2/1B; Charpy notched/unnotched ISO 179; flexural modulus ISO 178; HDT ISO 75-2 (Ae) at 1.8 MPa. Max long-term service 75-80 °C, short-term to 90-100 °C. Resistant to acids, alkalis, oils and water; not resistant to carboxylic acids, esters, ketones, chlorinated and aromatic hydrocarbons. Backside corona-treated for adhesion to resins and adhesives. Supplied 1-10 mm, widths to 2000 mm, smooth or embossed ("leather"/"sand"), gloss, with optional PE protective film. Values refer to the as-extruded state and exclude ageing; sheet properties vary with raw materials. Values are typical, intended as guide only. Suitability must be validated in the actual application. Flammability rating and water absorption available on request.

**PERFORMANCE PROFILE**
**PMMA** cap

Scratch &amp; UV surface

**15** kJ/m<sup>2</sup>

Charpy unnotched impact

**1.075** g/cm<sup>3</sup>

Light — vs metal / cast iron

**96** °C HDT

Deflection @ 1.8 MPa

*Co-extruded ABS/PMMA — tough core, scratch-resistant high-gloss acrylic face.*

## APPLICATIONS

Where ABS-PMMA gets specified — a scratch-resistant, high-gloss acrylic face on a tough, deep-draw ABS core.



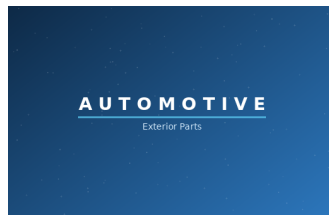
### Sanitary Ware

Bathtubs, shower trays, cabins, sinks and fonts. Deep-draw, hygienic, high-gloss.



### Refrigeration Liners

Refrigerator liners and internal/external components. Impact-tough at low temps.



### Automotive Exterior

Vehicle, agricultural and machinery exterior cladding. UV- and scratch-resistant.



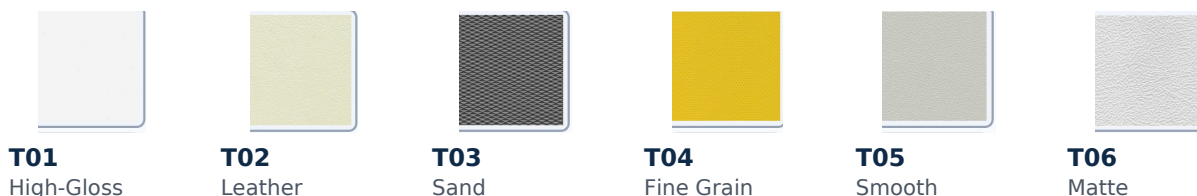
### Furniture Facades

Kitchen and living-room facades, fountains, medical and children's furniture.

## PRODUCTION SPECIFICATIONS

|                        |                         |                                  |
|------------------------|-------------------------|----------------------------------|
| <b>Sheet Thickness</b> | <b>1 - 10 mm</b>        | Two-layer co-extruded            |
| <b>Sheet Width</b>     | <b>up to 2000 mm</b>    | Line-dependent                   |
| <b>Sheet Length</b>    | <b>up to 6 m</b>        | Custom cut-to-size on request    |
| <b>Surface</b>         | <b>Gloss / Embossed</b> | "Leather" & "sand" textures      |
| <b>Cap Layer</b>       | <b>PMMA acrylic</b>     | UV + scratch protection          |
| <b>Colour</b>          | <b>Wide range</b>       | Custom colours; PE film optional |

## SURFACE FINISHES



## HOW TO READ THESE NUMBERS

Quick reference for what each test actually tells you about how the sheet behaves.

- **Tensile Yield**  
Force before the sheet permanently deforms.
- **Elongation @ Break**  
How far it stretches before failing.
- **Flexural Modulus**  
Bending stiffness. Higher = more rigid.
- **Charpy Impact**  
Toughness against knocks; holds up even at -30 °C.
- **HDT**  
Heat at which it starts to sag under load.
- **Service Temp**  
Safe long-term (75-80 °C) and short-term limits.
- **Density**  
1.075 = far lighter than metal or cast iron.
- **PMMA Cap**  
Acrylic top layer — the scratch/UV/gloss surface.
- **UV Resistance**  
Acrylic face resists yellowing and sunlight.
- **Chemical Resist.**  
Withstands acids, alkalis, oils and water.
- **Corona Treatment**  
Activated backside for gluing and bonding.
- **Gloss / Emboss**  
Finish options — high-gloss or textured surface.