

# Axpet®

## Solid polyester sheet

### Your benefits:

- good impact strength
- good fire rating
- suitable for food-contact applications

Solid **Axpet®** sheets are made from thermoplastic polyester. They offer high impact strength and a good fire rating. Axpet® is resistant to chemicals and fully recyclable.

**Axpet® clear 099** is a clear-transparent sheet with high light transmission and gloss. Axpet® clear 099 can be used for food-contact applications.

**Axpet® white 130** is a translucent sheet offering good light diffusion combined with a pleasant white color.

**Axpet UV clear 2099** is a clear transparent sheet with UV protection on both sides to prevent visible yellowing.

### Applications:

Ideal fields of indoor application for **Axpet®** are: P.O.S. (displays, price tag holders, shelf partitions), poster glazing, poster boards (also backlit), direction signs, promotional symbols, food containers and trays, decorative inserts, flat machine guards.

The sheets can be machined and screen printed with ease. Owing to the crystallization properties of polyester, the sheet may turn white during thermoforming. Line-bent **Axpet®** sheets show a hinge effect and are ideal for cold folding. For outdoor applications it is recommended to use **Axpet® UV** sheets.

|                                                                                                                                                                                  | Test Conditions                                                                                                     | Typical values                                                                 | Unit                                                                                                  | Standard                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PHYSICAL</b><br>Density<br>Moisture absorption<br><br>Refractive index                                                                                                        | <br><br>after storage in standard climate 23 °C/50% RH<br>after storage in water at 23 °C until saturation<br>20 °C | <br>1.33<br>0.2<br>0.5<br>1.585                                                | <br>g/cm <sup>3</sup><br>%<br>%<br>–                                                                  | <br>ISO 1183-1<br>ISO 62-4<br>ISO 62-1<br>ISO 489                                                                                                     |
| <b>MECHANICAL</b><br>Tensile stress at yield<br>Elongation at yield<br>Tensile strength<br>Elongation at break<br>Elastic modulus<br>Limiting flexural stress<br>Impact strength | <br><br><br><br><br>Charpy, unnotched<br>Charpy, notched<br>Izod, notched                                           | <br>› 55<br>4<br>› 55<br>› 25<br>2,500<br>ca. 80<br>no break<br>ca. 4<br>ca. 3 | <br>MPa<br>%<br>MPa<br>%<br>MPa<br>MPa<br>kJ/m <sup>2</sup><br>kJ/m <sup>2</sup><br>kJ/m <sup>2</sup> | <br>ISO 527-2/1B/50<br>ISO 527-2/1B/50<br>ISO 527-2/1B/50<br>ISO 527-2/1B/50<br>ISO 527-2/1B/1<br>ISO 178<br>ISO 179/1fU<br>ISO 179/1eA<br>ISO 180/1A |
| <b>THERMAL</b><br>Vicat softening temperature<br>Thermal conductivity<br>Coeff. of linear thermal expansion<br>Heat deflection temperature under load                            | <br>Method B50<br><br>Method A: 1.80 MPa<br>Method B: 0.45 MPa                                                      | <br>75<br>0.25<br>0.05<br>63<br>70                                             | <br>°C<br>W/m K<br>mm/m K<br>°C<br>°C                                                                 | <br>ISO 306<br>DIN 52612<br>DIN 53752-A<br>ISO 75-2<br>ISO 75-2                                                                                       |
| <b>ELECTRICAL</b><br>Dielectric strength<br>Volume resistivity<br>Surface resistivity<br>Dielectric constant<br><br>Dissipation factor                                           | <br><br><br><br>at 10 <sup>3</sup> Hz<br>at 10 <sup>6</sup> Hz<br>at 10 <sup>3</sup> Hz<br>at 10 <sup>6</sup> Hz    | <br>17<br>10 <sup>15</sup><br>10 <sup>16</sup><br>3.4<br>3.1<br>0.015<br>0.056 | <br>kV/mm<br>Ohm·cm<br>Ohm<br><br><br><br>                                                            | <br>IEC 60243-1<br>IEC 60093<br>IEC 60093<br>IEC 60250<br>IEC 60250<br>IEC 60250<br>IEC 60250                                                         |

The mechanical properties were measured on sheets of 4 mm thickness.

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**Light Transmission:**

Test method according to DIN EN ISO 13468. The stated thicknesses are not all available as standard. Please ask us for more information. The stated values are typical values only.

| Light Transmission in %                | 0,8 | 1  | 1,5 | 2  | 3  | 4  | 5  |
|----------------------------------------|-----|----|-----|----|----|----|----|
| Axpet® clear 099/ Axpet® UV clear 2099 | 90  | 89 | 89  | 88 | 87 | 86 | 85 |
| Axpet® white 130                       |     | 28 | 28  | 28 | 30 |    |    |

**Available sizes:** Axpet® is available in thicknesses of 0.8-5 mm and in the following sizes; other sizes, colors and sheet thicknesses on request.

**Colors:**

Axpet® clear 099                      Axpet® white 130  
Axpet® UV clear 2099

**Sizes (standard):**

2,050 x 1,250 mm  
3,050 x 2,050 mm

**Food compatibility**

Axpet® clear 099 can be used for food-contact applications

**Permanent Service Temperature:**

The maximum permanent service temperature without load is approx. 60°C.

**Fire Rating (\*):**

| Country | Standard      | Rating   | Thickness  | Color     |
|---------|---------------|----------|------------|-----------|
| Europe  | EN 13501-1    | B-s1, d0 | 0.8 - 5 mm | clear 099 |
| UK      | BS 476 Part 7 | Class 1Y | 1.5 & 5 mm | clear 099 |

**Glow wire flammability index, IEC 60695-2-12, in °C (\*):**

|                  | 0,8 | 1   | 1,5 | 2   | 2,5 | 3   | 4   | 5 |
|------------------|-----|-----|-----|-----|-----|-----|-----|---|
| Axpet® clear 099 | 960 | 960 | 960 | 960 |     | 960 | 960 |   |
| Axpet® white 130 |     | 960 | 960 | 960 |     | 960 | 96  |   |

(\*) fire certificates are limited in time, always check if the mentioned certificate is still valid.