

# **Poly-Mac GP Sheets**Solid General Purpose Polycarbonate Sheet

**Poly-Mac GP** sheets are clear, polished, UV stabilized clear-transparent polycarbonate sheets. They offer extreme impact strength that exceeds the physical properties of other products of their class. Poly-Mac sheets resist temperature of -100C to 120C, exhibiting high optical clarity and have good fire rating.

Poly-Mac GP is clear transparent sheet with high light transmission. It is also available in matt finish, special surface textures, translucent with good light diffusion in combination with white colour.

This GP sheets are offered with a five year limited product warranty against breakage and no any warranty if exposed to direct sunlight.

**Available Sizes are:** available in thicknesses of 1 - 20 mm and in the following sizes; other sizes, transparent colours and sheet thicknesses on request.

**Colours:** Clear, White, Bronze, Grey, Blue, Green **Sizes Std:** 2050mm X 1250mm, 3050mm X 2050mm

**Application:** ideal for machine guards, lighting fixtures, signs, wall and door partitions, thermoformed products

### **Technical data**

| Property                          | Test conditions       | Typical<br>Values | Unit       | Test Method     |
|-----------------------------------|-----------------------|-------------------|------------|-----------------|
| Physical                          |                       |                   |            |                 |
| Density                           |                       | 1.2               | g/cm3      | ISO 1183-1      |
| Moisture absorption               | 23°C /50%RH           | 0.15              | %          | ISO 62-4        |
| Refractive Index                  | 20°C                  | 1.58              | -          | ISO 489         |
| Mechanical                        |                       |                   |            |                 |
| Tensile stress at yield           |                       | >60               | MPa        | ISO 527-2/1B/50 |
| Elongation at Yield               |                       | 6                 | %          | ISO 527-2/1B/50 |
| Tensile Strength                  |                       | >60               | MPa        | ISO 527-2/1B/50 |
| Elongation at break               |                       | >70               | %          | ISO 527-2/1B/50 |
| Elastic Modulus                   |                       | 2400              | MPa        | ISO 527-2/1B/1  |
| Limiting Flexural stress          |                       | Approx.90         | MPa        | ISO 178         |
| Impact Strength Charpy            | Unnotched             | No break          | kJ/m2      | ISO 179/1fU     |
| Impact Strength Charpy            | Notched               | Approx.11         | kJ/m2      | ISO 179/1eA     |
| Impact Strength Izod              | Unnotched             | Approx.10         | kJ/m2      | ISO 180/1A      |
| Impact Strength Izod              | Notched               | Approx.70         | kJ/m2      | ISO 180/4A      |
| Thermal                           |                       |                   |            |                 |
| Vicat Softening temp              | Method B50            | 148               | °C         | ISO 306         |
| Thermal conductivity              |                       | 0.2               | W/m K      | DIN 52612       |
| Coeff, of liner thermal expansion |                       | 0.065             | Mm/m<br>°C | DIN 53752-A     |
| HDT under load                    | 1.80 Mpa              | 127               | °C         | ISO 75-2        |
|                                   | 0.45 Mpa              | 139               | °C         | ISO 75-2        |
| Electrical                        |                       |                   |            |                 |
| Dielectric Strength               |                       | 35                | kV/mm      | IEC 60243-1     |
| Volume resistivity                |                       | 10 <sup>16</sup>  | Ohm-cm     | IEC 60093       |
| Surface resistivity               |                       | 10 <sup>14</sup>  | Ohm        | IEC 60093       |
| Dielectric constant               | At 10 <sup>3</sup> Hz | 3.1               |            | IEC 60250       |
|                                   | At 10 <sup>6</sup> Hz | 3                 |            | IEC 60250       |
| Dissipation factor                | At 10 <sup>3</sup> Hz | 0.0005            |            | IEC 60250       |
|                                   | At 10 <sup>6</sup> Hz | 0.009             |            | IEC 60250       |

#### Product data sheet 2018

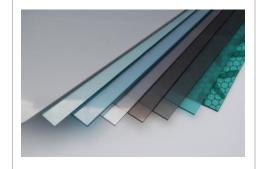
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## SOLID POLYCARBONATE SHEET

Silent, Safe, Sustainable PC Sheets – Make in India

#### Advantages:

Extreme Impact strength Good fire rating Thermoformable Locally manufactured ISI approved



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\*The mechanical properties were measured on sheets of 4 mm or 3 mm 1) thickness.

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