

# SABIC® PMMA 20HR

POLYMETHYL METHACRYLATE

## DESCRIPTION

SABIC® PMMA 20HR is a PMMA grade with good heat resistance property suitable for extrusion and injection molding applications. The grade is available in pellet form.

## TYPICAL PROPERTY VALUES

Revision 20220721

| PROPERTIES  | TYPICAL VALUES | UNITS             | TEST METHODS |
|---|----------------|-------------------|--------------|
| <b>PHYSICAL PROPERTIES <sup>(1)</sup></b>         |                |                   |              |
| Specific Gravity                                  | 1.19           | g/cm <sup>3</sup> | ISO 1183     |
| Melt Flow Rate, 230°C/3.8 kg                      | 2.0            | g/10 min          | ISO 1133     |
| Water Absorption (24hr)                           | 0.3            | %                 | ISO 62       |
| <b>MECHANICAL PROPERTIES <sup>(1)</sup></b>       |                |                   |              |
| Tensile Strength                                  | 77             | MPa               | ISO 527      |
| Elongation  | 6              | %                 | ISO 527      |
| Modulus Of elasticity (1 mm/min)                  | 3.3            | GPa               | ISO 527      |
| Flexural Strength                                 | 140            | MPa               | ISO 178      |
| Flexural modulus (2 mm/min)                       | 3.3            | GPa               | ISO 178      |
| Charpy Impact strength (un notched)               | 20             | kJ/m <sup>2</sup> | ISO 179      |
| Charpy Impact strength (Notched) 23°C             | 1.4            | kJ/m <sup>2</sup> | ISO 179      |
| Rockwell Hardness (M-scale)                       | 101            | -                 | ISO 2039     |
| <b>OPTICAL PROPERTIES <sup>(1)</sup></b>          |                |                   |              |
| Total Light Transmittance                         | 93             | %                 | ISO 13468    |
| Haze  | 0.3            | %                 | ISO 14782    |
| Refractive Index                                  | 1.49           | -                 | ISO 489      |
| <b>THERMAL PROPERTIES <sup>(1)</sup></b>          |                |                   |              |
| Coefficient of Linear Expansion (-30°C to 30°C)   | 6e-5           | 1/°C              | ASTM D696    |
| Thermal Conductivity                              | 0.2            | W/(m*°C)          | ASTM C177    |
| Deflection temperature under load DTUL (@1.8 MPa) | 100            | °C                | ISO 75-1&2   |
| Vicat Softening Temperature (B50)                 | 107            | °C                | ISO 306      |

(1) Typical values; not to be construed as specification limits

## CHARACTERISTICS

SABIC® PMMA 20HR has the following:

- Good chemical resistance
- Good impact resistance
- Good toughness
- High gloss

## STORAGE AND HANDLING

Handle in an area equipped with local or general ventilation. Provide facilities for washing eyes and body in case of emergency near the handling area. As preventive measure, make sure all equipment and devices are properly grounded. Store at a location away from heat and fire source and an area not exposed to sunlight. Store in an area where no water leakage occurs and the humidity is low.

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CHEMISTRY THAT MATTERS™

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