



# SkyGate Polymer Sdn Bhd

Reg No: 202401023225 (1569074-W)

## ACRYLIC (PMMA) TECHNICAL DATA SHEET

| ITEM       |                                                       | TEST METHOD |                       | UNIT              | PMMA               |
|------------|-------------------------------------------------------|-------------|-----------------------|-------------------|--------------------|
|            |                                                       | ISO         | JIS                   |                   |                    |
| OPTICAL    | Refractive Index                                      | ISO 489     | JIS K7142             | -                 | 1.49               |
|            | Total Transmission                                    | ISO 13468-1 | JIS K7361-1           | %                 | 92                 |
|            | Haze                                                  | ISO 14782   | JIS K7136             | %                 | <0.5               |
| THERMAL    | Coefficient of Linear Expansion                       | ISO 11359-2 | JIS K7197             | 1/ °C             | 7X10 <sup>-5</sup> |
|            | Vicat Softening Temperature (VST)                     | ISO306      | JIS K7206 (B50)       | °C                | 109                |
|            | Deflection Temperature Under Load 1.82 Mpa (annealed) | ISO75-2     | JIS K7191 (Af method) | °C                | 101                |
|            | Melt Flow Rate (MFR) 230oC, 37.3N (3.8kgf)            | ISO1133     | JIS K7210             | g/10min.          | 2                  |
| MECHANICAL | Tensile Strength at break                             | ISO 527-2   | JIS K7162             | Mpa               | 76                 |
|            | Tensile Strain at break                               | ISO 527-2   | JIS K7162             | %                 | 4                  |
|            | Flexural Strength                                     | ISO 178     | JIS K7171             | Mpa               | 120                |
|            | Flexural Modulus                                      | ISO 178     | JIS K7171             | Mpa               | 3100               |
|            | Charpy Impact Strength (notched)                      | ISO 179-1   | JIS K7111             | KJ/m <sup>2</sup> | 1.4                |
|            | Rockwell Hardness Scale M                             | ISO 2039-2  | JIS K7202             | -                 | 100                |
| ELECTRICAL | Surface Resistivity                                   | IEC 60093   | JIS K6911             | Ω                 | >10 <sup>16</sup>  |
|            | Volume Resistivity                                    | IEC 60093   | JIS K6911             | Ω cm              | >10 <sup>15</sup>  |
|            | Insulation Resistance                                 | IEC 60167   | JIS K6911             | Ω                 | >10 <sup>15</sup>  |
|            | Dielectric Strength                                   | IEC 60243-1 | JIS K6911             | kV/mm             | 20                 |
|            | Dielectric Constant (1MHz)                            | IEC 60250   | JIS K6911             | -                 | 3.1                |
| OTHER      | Specific Gravity                                      | ISO 1183    | JIS K7112 (A method)  | -                 | 1.19               |
|            | Mold Shrinkage                                        | ISO 294-4   | ASTM D-955            | %                 | 0.2 - 0.6          |
|            | Water Absorption                                      | ISO 62      | JIS K7209             | %                 | 0.3                |
|            | Flammability                                          | UL 94       |                       | -                 | HB                 |

\*The above data are typical laboratory values and are intended to serve as guides only.

### Benefits

Optical Clear  
Light Transmittance > 92%  
Weather Resistance  
Easily machined & formed  
Insoluble in salt water  
Easy maintenance

### Applications

Automotive  
Electronics  
Lighting Fixtures  
Signs & Displays  
Architecture

**30** Years of  
Extrusion  
Excellence

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