

# HI855M PMMA, Impact Resistant Grade

| PROPERTY                                 | CONDITION   | UNIT              | METHOD          | VALUE              |
|--|-------------|-------------------|-----------------|--------------------|
| <b>OPTICAL PROPERTIES</b>                |             |                   |                 |                    |
| Refractive Index                         | nd          | -                 | ISO 489         | 1.49               |
| Light Transmittance                      | 3.2mm       | %                 | ISO 13468-1     | 91                 |
| Haze                                     | 3.2mm       | %                 | ISO 14782       | <1.5               |
| <b>THERMAL PROPERTIES</b>                |             |                   |                 |                    |
| Melt Flow Index                          | 230°C/3.8kg | g/10min           | ISO 1133        | 6.4                |
| VICAT Softening Point                    | B/50        | °C                | ISO 306         | 88                 |
| Heat Deflection Temperature              | 1.8MPa      | °C                | ISO 75          | 79                 |
| Coefficient of Linear Expansion          | -           | 1/°C              | ASTM D696       | 7X10 <sup>-5</sup> |
| <b>MECHANICAL PROPERTIES</b>             |             |                   |                 |                    |
| Charpy Impact Strength                   | notched     | kJ/m <sup>2</sup> | ISO 179         | 3.0                |
| Rockwell Hardness                        | M scale     | -                 | ISO 2039-2      | 61                 |
| Tensile Strength at Break                | 5mm/min     | MPa               | ISO 527         | 38                 |
| Tensile Strain at Break                  | 5mm/min     | %                 | ISO 527         | 46                 |
| Tensile Modulus                          | 1mm/min     | GPa               | ISO 527         | 2.0                |
| Flexural Strength                        | 2mm/min     | MPa               | ISO 178         | 71                 |
| Flexural Modulus                         | 2mm/min     | GPa               | ISO 178         | 2.0                |
| <b>GENERAL PROPERTIES</b>                |             |                   |                 |                    |
| Density                                  | -           | g/cm <sup>3</sup> | ISO 1183        | 1.17               |
| Mold Shrinkage                           | -           | %                 | ASTM D955       | 0.4-0.8            |
| Water Absorption                         | 24hr        | %                 | ASTM D570       | 0.4                |
| Flammability UL94                        | 1.5mm       | Class             | IEC 60695-11-10 | HB                 |
| <b>RECOMMENDED PROCESSING CONDITIONS</b> |             |                   |                 |                    |
| Predrying Temperature                    |             | °C                |                 | Max. 70            |
| Predrying Time in Desiccant-Type Drier   |             | hr                |                 | 3-4                |
| Melt Temperature                         |             | °C                |                 | 210-240            |
| Mold Temperature                         |             | °C                |                 | 50-70              |

REMARKS : The listed values should be used for reference purpose only.