



# PSJ-POLYSTYRENE HIPS

|                                   | Test method | Test piece size | Test condition     | unit                   | High Impact<br>High Modulus | High Gloss | High Gloss<br>High Impact | Extrusion |       |       |
|-----------------------------------|-------------|-----------------|--------------------|------------------------|-----------------------------|------------|---------------------------|-----------|-------|-------|
|                                   | ISO         | mm              |                    | S. I.                  | H9152                       | 408        | H8672                     | 475D      | H0103 | HT478 |
| <b>1. Rheology Properties</b>     |             |                 |                    |                        |                             |            |                           |           |       |       |
| Melt mass flow rate               | 1133        | pellets         | 200°C<br>5kg f     | g/10min                | 5.5                         | 7.0        | 4.0                       | 2.0       | 2.6   | 3.0   |
| Melt volume flow rate             | 1133        | pellets         | 200°C<br>5kg f     | cm <sup>3</sup> /10min | 5.7                         | 7.3        | 4.1                       | 2.1       | 2.8   | 3.1   |
| <b>2. Physical Properties</b>     |             |                 |                    |                        |                             |            |                           |           |       |       |
| Tensile Stress at Yield           | 527-1       | type A          | 50mm/min           | MPa                    | 35                          | 33         | 32                        | 30        | 31    | 33    |
| Nominal tensile strain at break   | 527-1       | type A          | 50mm/min           | %                      | 40                          | 40         | 30                        | 50        | 30    | 30    |
| Flexual Modulus                   | 178         | 80×10×4         | 2mm/min            | MPa                    | 2600                        | 2450       | 2200                      | 2250      | 2050  | 2050  |
| Flexual Strength                  | 178         | 80×10×4         | 2mm/min            | MPa                    | 64                          | 55         | 53                        | 57        | 50    | 50    |
| Charpy Impact Strength (Notched)  | 179         | 80×10×4         | 1eA                | kJ/m <sup>2</sup>      | 12                          | 10         | 17                        | 14        | 16    | 15    |
| <b>3. Thermal Properties</b>      |             |                 |                    |                        |                             |            |                           |           |       |       |
| Deflection temperature under load | 75-2        | 80×10×4         | flatwise<br>1.8MPa | °C                     | 77                          | 75         | 75                        | 75        | 74    | 75    |
| Vicat Softening Temp.             | 306         | 10×10×4         | 50°C/h,<br>50N     | °C                     | 95                          | 92         | 91                        | 93        | 94    | 96    |
| <b>4. Another Properties</b>      |             |                 |                    |                        |                             |            |                           |           |       |       |
| Density                           | 1183        | 80×10×4         | A method           | kg/m <sup>3</sup>      | 1040                        | 1040       | 1040                      | 1040      | 1040  | 1040  |
| Ball Pressure Temp.               |             | t=3mm           | —                  | °C                     | 90                          | 85         | 90                        | 85        | *90   | *90   |
| Gloss                             | JIS Z8741   | type A          | 60°                | %                      | 70                          | 85         | 85                        | 50        | 83    | 60    |
| Rockwell Hardness                 | 2039-2      | type A          | L scale            | —                      | 75                          | 70         | 65                        | 65        | 50    | 50    |

●The data in this report are typical examples of values measured at specific conditions.