

PETG RESIN TECHNICAL DATA SHEET

| Items | Unit | test method | UB-102 |
|---|---------------------|----------------------|-------------|
| Property | | | |
| Intrinsic Viscosity | dL/g | Ubbelodhe viscometer | 0.780±0.015 |
| Specific Gravity | kg/cm ³ | ASTM D792 | 1.29 |
| Moisture Absorption | % | ASTM D570 | 0.12 |
| Mechanical | | | |
| Tensile Strength @Yield 50mm/min(2 inch/min) | kgf/cm ² | ASTM D638 | 508 |
| Tensile Strength @Break 50mm/min(2 inch/min) | kgf/cm ² | ASTM D638 | 292 |
| Elongation @Yield 50mm/min (2 inch/min) | % | ASTM D638 | 5 |
| Elongation @Break 50mm/min (2 inch/min) | % | ASTM D638 | 165 |
| Flexural Strength 1.27mm/min (2 inch/min) | kgf/cm ² | ASTM D790 | 680 |
| Flexural Modulus 1.27mm/min (3 inch/min) | kgf/cm ² | ASTM D790 | 21200 |
| Low temperature falling dart impact | g | ASTM D358 | 829 |
| Atmospheric temperature falling dart impact | g | ASTM D358 | 1803 |
| Izod Impact Strength Notched@23°C(73°F) | J/m | ASTM D256 | 102 |
| Hardness | | | |
| Rockwell Hardness | °C | R-scale | 117 |
| Thermal | | | |
| Heat Distortion Temperature @0.45MPa(66 psi) | °C | ASTM D648 | 77 |
| Melting Index | g/10min | ASTM D 1238-04 | 1.8 |
| Melting Point | °C | - | ≥196±2 |

Electric property

| | | | |
|---|----------|-----------|--------------------|
| Surface Resistivity | Ohm | ASTM D257 | 10 ⁽¹⁶⁾ |
| Volume Resistivity | Ohm • cm | ASTM D257 | 10 ⁽¹⁵⁾ |
| Dielectric Strength (short time, 500V/sec) | kV • mm | ASTM D149 | 16 |
| Dielectric Constant 1 kHz | - | ASTM D150 | 2.6 |
| Dielectric Constant 1 MHz | - | ASTM D150 | 2.4 |
| Dielectric Constant 1 kHz | - | ASTM D150 | 0.005 |
| Dielectric Constant 1 MHz | - | ASTM D150 | 0.023 |

Flammability

| | | | |
|---|---|-------|-----|
| UL Flammability Classification UL 1.00mm | - | UL 94 | HB |
| UL Flammability Classification UL 1.50mm | - | UL 94 | HB |
| UL Flammability Classification UL 3.00mm | - | UL 94 | V-2 |

Optical

| | | | |
|-------------------------|---|-----------|-------|
| Haze | % | - | < 1.0 |
| Transmittance | % | ASDM D541 | 90 |
| Refractive Index | - | ASDM D542 | 1.56 |