

Properties

S5220

Glass fiber-reinforced flame retardant PC/ABS resin (GF20%, UL94 V-0)

| Properties | Test methods | Test conditions | Units | |
|---|--------------|-----------------|-------------------|-----------|
| Mold shrinkage | ASTM D955 | - | % | 0.1-0.4 |
| Tensile strength | ISO 527 | - | MPa | 95 |
| Flexural strength | ISO 178 | - | MPa | 155 |
| Flexural modulus | ISO 178 | - | MPa | 6500 |
| Notched Charpy impact strength | ISO 179/1eA | 23 deg C | kJ/m ² | 7 |
| Notched Izod impact strength | ASTM D256 | 23 deg C/6.4mm | J/m | 60 |
| Deflection temperature under load | ISO 75 | 1.80MPa | deg C | 124 |
| Deflection temperature under load | ASTM D648 | 1.82MPa/6.4mm | deg C | 134 |
| Coefficient of linear thermal expansion | ISO 11359 | MD | X1E-5/deg C | 4 |
| Coefficient of linear thermal expansion | ISO 11359 | TD | X1E-5/deg C | 8 |
| Flammability | UL94 | - | - | V-0/1.6mm |
| Dielectric strength | ASTM D149 | 1.5mm | MV/m | 27 |
| Arc resistance | ASTM D495 | 3.0mm | sec(PLC) | 69(6) |
| Hot wire ignition | UL746A | 1.5mm | sec(PLC) | 42(2) |
| High ampere arc ignition | UL746A | 1.5mm | (PLC) | 150(0) |
| High voltage tracking rate | UL746A | 3.0mm | mm/min(PLC) | 281(4) |
| Comparative tracking index | IEC 112 | 3.0mm | V(PLC) | 190(3) |
| Water absorption | ISO 62 | - | % | 0.3 |
| Density | ISO 1183 | - | g/cm ³ | 1.35 |

Note

- Values are typical, not quality assured.
- UL recognition File No. of Daicel Polymer is E47773.

Typical settings for processing

| Preliminary drying | Barrel temperature(deg C) | | | | Screw rotation (rpm) | Back pressure (MPa) | Mold temperature (deg C) |
|-----------------------|---------------------------|---------|---------|---------|----------------------|---------------------|--------------------------|
| | Nozzle | Front | Middle | Back | | | |
| 4-5hrs 90-120deg C | 230-260 | 230-260 | 220-250 | 200-240 | 50-100 | 5-20 | 60-80 |