

RS670

Extrusion Molding Grade

Description

- Chemical Resistance to Cyclopentane, Low Specific Gravity

Applications

- Refrigerator Inner Liner

| Properties | Method | Unit | RS670 |
|---|------------|----------|-----------|
| Physical | | | |
| Specific Gravity , 23°C | ASTM D792 | | 1.04 |
| Mold Shrinkage , 23°C, 3.2mm , 23°C | ASTM D955 | % | 0.4 ~ 0.7 |
| Melt Flow Rate , 220°C, 10kg | ASTM D1238 | g/10min | 4.5 |
| Mechanical | | | |
| Tensile Strength at Yield , 23°C, 50mm/min, 3.2mm | ASTM D638 | Mpa | 49 |
| Tensile Elongation at Yield , 23°C, 50mm/min, 3.2mm | ASTM D638 | %, (Min) | 5 |
| Tensile Elongation at Break , 23°C, 50mm/min, 3.2mm | ASTM D638 | %, (Min) | 15 |
| Tensile Modulus , 23°C, 50mm/min, 3.2mm | ASTM D638 | MPa | 2300 |
| Flexural Strength , 23°C, 15mm/min, 3.2mm | ASTM D790 | Mpa | 78 |
| Flexural Modulus , 23°C, 15mm/min, 3.2mm | ASTM D790 | MPa | 2500 |
| Izod Impact Strength , Notched, 3.2mm, 23°C | ASTM D256 | J/m | 310 |
| Izod Impact Strength , Notched, 3.2mm, -30°C | ASTM D256 | J/m | 110 |
| Izod Impact Strength , Notched, 6.4mm, 23°C | ASTM D256 | J/m | 290 |
| Izod Impact Strength , Notched, 6.4mm, -30°C | ASTM D256 | J/m | 100 |
| Rockwell Hardness , R-Scale | ASTM D785 | | 106 |
| Thermal | | | |
| HDT , Edgewise, 1.82MPa, 6.4mm, Unannealed | ASTM D648 | °C | 89 |
| VICAT , 50N, 50°C/h | ASTM D1525 | °C | 96 |
| Flammability, 1.5mm | UL 94 | | HB |
| Flammability, 3.0mm | UL 94 | | HB |

Note

Typical values can be used only for the purpose of selecting material, and there can be variation within normal tolerances for various colors. Values given should not be interpreted as specification and not be used for designing part or tool. All properties, except melt flow rate are measured by injection molded specimens after 48 hours storage at 23°C, 50% relative humidity.

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Processing Guide (Extrusion Molding)

| Processing Parameters | Unit | Value |
|--------------------------------|------|-------------|
| Drying Temperature | °C | 70 ~ 80 |
| Drying Time | hrs | 3 ~ 4 |
| Minimum Moisture Content | % | 0.01 ~ 0.01 |
| Melt Temperature | °C | 200 ~ 250 |
| Barrel Temperature, Zone 1 | °C | 180 ~ 210 |
| Barrel Temperature, Zone 2 | °C | 190 ~ 230 |
| Barrel Temperature, Zone 3 | °C | 200 ~ 250 |
| Barrel Temperature, Zone 4 | °C | 200 ~ 250 |
| Adapter Temperature | °C | 200 ~ 250 |
| Die Temperature | °C | 200 ~ 250 |
| Roll Stack Temperature, Top | °C | 70 ~ 100 |
| Roll Stack Temperature, Middle | °C | 70 ~ 90 |
| Roll Stack Temperature, Bottom | °C | 60 ~ 90 |

Note

Recommend initial lower temperatures settings to avoid material degradation/hang-up in die & purge material from extruder prior to shutdown.