

# RS670

## Description

RS670 is an ABS product for extrusion and thermoforming, designed to have chemical resistance to Cyclopentane foaming agents.

## Key Features

Thermoforming, Chemical Resistance to Cyclopentane, High Impact Strength

## Application

Refrigerator

| Properties                  | Condition                            | Method     | Unit     | RS670     |
|-----------------------------|--------------------------------------|------------|----------|-----------|
| <b>Physical</b>             |                                      |            |          |           |
| Specific Gravity            | 23°C                                 | ASTM D792  |          | 1.04      |
| Mold Shrinkage              | 23°C, 3.2mm                          | ASTM D955  | %        | 0.4 ~ 0.7 |
| Melt Flow Index             | 220°C, 10kg                          | ASTM D1238 | g/10min  | 4.5       |
| <b>Mechanical</b>           |                                      |            |          |           |
| Tensile Strength at Yield   | 23°C, 50mm/min, 3.2mm                | ASTM D638  | MPa      | 49        |
| Tensile Elongation at Break | 23°C, 50mm/min, 3.2mm                | ASTM D638  | %, (Min) | 10        |
| Flexural Strength           | 23°C, 10mm/min, 6.4mm                | ASTM D790  | MPa      | 78        |
| Flexural Modulus            | 23°C, 10mm/min, 6.4mm                | 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       |
| <b>Thermal</b>              |                                      |            |          |           |
| Heat Deflection Temperature | Edgewise, 1.82MPa, 6.4mm, Unannealed | ASTM D648  | °C       | 90        |
| Vicat Softening Temperature | 50N, 50°C/h                          | ASTM D1525 | °C       | 98        |

## 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 index are measured by injection molded specimens after 48 hours storage at 23°C, 50% relative humidity.

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## Processing Guide (Extrusion)

| Processing Parameters | Unit | Value     |
|-----------------------|------|-----------|
| Drying Temperature    | °C   | 80 ~ 90   |
| Drying Time           | hrs  | 3 ~ 4     |
| Moisture Content      | %    | ~ 0.01    |
| Extrusion Temperature | °C   | 180 ~ 250 |

## Note

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

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