



Ravathane R210D52UV

Ravago Manufacturing Turkey - Thermoplastic Polyurethane Elastomer

(Polyether)

General Information

Product Description

Description: Product is based on standard grade polyether and has strong resilience and tear resistance, excellent abrasion resistance, excellent resistance to hydrolysis failure and microbial attack, good stability towards solvents and light.

Application: Injection molding and extrusion

General

| | | | |
|-------------------|--|---|-------------|
| Material Status | • Commercial: Active | | |
| Availability | • Europe | • North America | |
| Features | • Abrasion Resistant • Good Tear Strength | • Hydrolysis Resistant • Microbe Resistant | • Resilient |
| Forms | • Pellets | | |
| Processing Method | • Extrusion | • Injection Molding | |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|------------------------------|---------------|-------------------|-------------|
| Density | 1.14 | g/cm ³ | ISO 1183/A |
| Mechanical | Nominal Value | Unit | Test Method |
| Abrasion Resistance | 35.0 | mm ³ | ISO 4649 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Stress (100% Strain) | 17.0 | MPa | ISO 37 |
| Tensile Stress (300% Strain) | 28.0 | MPa | ISO 37 |
| Tensile Stress (Yield) | 47.0 | MPa | ISO 37 |
| Tensile Elongation (Break) | 470 | % | ISO 37 |
| Tear Strength ² | 130 | kN/m | ISO 34-1 |
| Hardness | Nominal Value | Unit | Test Method |
| Shore Hardness (Shore D) | 52 | | ISO 868 |

Processing Information

| Injection | Nominal Value | Unit |
|--------------------|---------------|------|
| Drying Temperature | 100 to 110 | °C |
| Rear Temperature | 200 | °C |
| Middle Temperature | 210 | °C |
| Front Temperature | 215 | °C |
| Nozzle Temperature | 210 | °C |
| Injection Pressure | 70.0 | MPa |

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| Extrusion | Nominal Value | Unit |
|--------------------------|---------------|------|
| Cylinder Zone 1 Temp. | 180 to 195 | °C |
| Cylinder Zone 2 Temp. | 190 to 210 | °C |
| Cylinder Zone 3 Temp. | 200 to 220 | °C |
| Cylinder Zone 4 Temp. | 190 to 200 | °C |
| Die Temperature | 185 to 195 | °C |
| Extruder Screw L/D Ratio | 25:1 | |
| Screw Cooling | Air | |

Extrusion Notes

Type: 30/25d, Screw: 3:1, Speed: 3:1, Speed: 50 rpm, Thickness Die: 0.2mm, Pre-heating: 1h@105°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² Method Bb, Angle (Nicked)