Monprene® CP-32273 (PRELIMINARY DATA)

Thermoplastic Elastomer

Teknor Apex Company

Message:

Monprene CP-32273 is a high performance thermoplastic elastomer, available in NAT and colors, designed for a variety of industrial and consumer product applications, including seals and gaskets, requiring low extraction by various solvents. Monprene CP-32273 is a high clarity, medium hardness, low density, elastic grade with good flow that is suitable for injection molding and extrusion.

| General Information | | | | | |
|---------------------|--------------------------|-------------------|-------------|--|--|
| Features | Low Specific Gravity | | | | |
| | Low extract | | | | |
| | Low density | | | | |
| | Solvent resistance | | | | |
| | Workability, good | | | | |
| | Good liquidity | | | | |
| | Good coloring | | | | |
| | Good adhesion | | | | |
| | Good chemical resistance | | | | |
| | Kink resistance | | | | |
| | Definition, high | | | | |
| | Elastic | | | | |
| | Medium hardness | | | | |
| | | | | | |
| Uses | O-rings | | | | |
| | Washer | | | | |
| | Washer | | | | |
| | Pipe fittings | | | | |
| | Insulating material | | | | |
| | Seals | | | | |
| | Rubber substitution | | | | |
| | | | | | |
| RoHS Compliance | RoHS compliance | | | | |
| Appearance | Available colors | | | | |
| | Clear/transparent | | | | |
| | | | | | |
| Forms | Particle | | | | |
| Processing Method | Extrusion | | | | |
| | Injection molding | | | | |
| Physical | Nominal Value | Unit | Test Method | | |
| Specific Gravity | 0.898 | g/cm ³ | ASTM D792 | | |

| Melt Mass-Flow Rate (MFR) (190°C/2.16 | | | | |
|---------------------------------------|---------------|----------|-------------|--|
| kg) | 2.0 | g/10 min | ASTM D1238 | |
| Hardness | Nominal Value | Unit | Test Method | |
| Durometer Hardness | | | ASTM D2240 | |
| Shaw A, 1 sec | 71 | | ASTM D2240 | |
| Shaw A, 5 seconds | 76 | | ASTM D2240 | |
| Elastomers | Nominal Value | Unit | Test Method | |
| Tensile Stress | | | ASTM D412 | |
| 50% strain | 3.83 | MPa | ASTM D412 | |
| 100% strain | 4.21 | MPa | ASTM D412 | |
| 300% strain | 6.07 | MPa | ASTM D412 | |
| Tensile Strength (Break) | 14.4 | MPa | ASTM D412 | |
| Tensile Elongation (Break) | 630 | % | ASTM D412 | |
| Tear Strength | 56.0 | kN/m | ASTM D624 | |
| Compression Set | | | ASTM D395 | |
| 23°C, 22 hr | 21 | % | ASTM D395 | |
| 70°C, 22 hr | 82 | % | ASTM D395 | |

Legal statement

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| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Rear Temperature | 149 - 171 | °C |
| Middle Temperature | 171 - 193 | °C |
| Front Temperature | 193 - 227 | °C |
| Nozzle Temperature | 193 - 227 | °C |
| Processing (Melt) Temp | 193 - 227 | °C |
| Mold Temperature | 21 - 52 | °C |
| Back Pressure | 0.345 - 1.03 | MPa |
| Screw Speed | 50 - 100 | rpm |
| Cushion | 3.56 - 25.4 | mm |
| | | |

Injection instructions

Drying is not necessary, however, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C)

| Extrusion | Nominal Value | Unit |
|-----------------------|---------------|------|
| Cylinder Zone 1 Temp. | 171 - 188 | °C |
| Cylinder Zone 2 Temp. | 182 - 196 | °C |
| Cylinder Zone 3 Temp. | 185 - 204 | °C |
| Cylinder Zone 4 Temp. | 204 - 227 | °C |
| Cylinder Zone 5 Temp. | 204 - 227 | °C |
| Die Temperature | 204 - 227 | °C |

Extrusion instructions

Screw Speed: 30 to 100 rpm.Screen Pack Recommendation:60/200/200/60 to 60/200/400/400/200/60 mesh size.

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