# 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 <sup>3</sup> | 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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#### Recommended distributors for this material

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