



# Monprene® PC-17142 NAT XRD2 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Monprene PC-17142 XRD2, available in NAT and colors, is a high performance thermoplastic elastomer designed for a variety of consumer product applications requiring a soft, rubber-like feel. Monprene PC-17142 XRD2 is a high density, low hardness grade that is suitable for injection molding.

### General

|                   |                                                                                                    |                                                                                                                            |                                                                                              |
|-------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Material Status   | • Preliminary Data                                                                                 |                                                                                                                            |                                                                                              |
| Availability      | • Africa & Middle East<br>• Asia Pacific                                                           | • Europe<br>• Latin America                                                                                                | • North America                                                                              |
| Features          | • Abrasion Resistant<br>• Chemical Resistant<br>• Filled<br>• Good Adhesion<br>• Good Colorability | • Good Impact Resistance<br>• Good Moldability<br>• Good Processability<br>• Good Processing Stability<br>• Good Toughness | • Halogen Free<br>• High Density<br>• High Flow<br>• High Specific Gravity<br>• Low Hardness |
| Uses              | • Consumer Applications<br>• Cosmetics                                                             | • Gaskets<br>• Handles                                                                                                     | • Personal Care<br>• Rubber Replacement                                                      |
| RoHS Compliance   | • RoHS Compliant                                                                                   |                                                                                                                            |                                                                                              |
| Appearance        | • Colors Available                                                                                 | • Natural Color                                                                                                            | • Opaque                                                                                     |
| Forms             | • Pellets                                                                                          |                                                                                                                            |                                                                                              |
| Processing Method | • Injection Molding                                                                                |                                                                                                                            |                                                                                              |

## ASTM & ISO Properties <sup>1</sup>

| Physical                                  | Nominal Value | Unit     | Test Method |
|-------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                | 1.26          |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 30            | g/10 min | ASTM D1238  |
| Elastomers                                | Nominal Value | Unit     | Test Method |
| Tensile Strength <sup>2</sup> (Break)     | 725           | psi      | ASTM D412   |
| Tensile Elongation <sup>2</sup> (Break)   | 400           | %        | ASTM D412   |
| Hardness                                  | Nominal Value | Unit     | Test Method |
| Durometer Hardness                        |               |          | ASTM D2240  |
| Shore A, 1 sec, Injection Molded          | 44            |          |             |
| Shore A, 5 sec, Injection Molded          | 42            |          |             |

## Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Rear Temperature       | 320 to 356    | °F   |
| Middle Temperature     | 347 to 374    | °F   |
| Front Temperature      | 374 to 428    | °F   |
| Nozzle Temperature     | 374 to 428    | °F   |
| Processing (Melt) Temp | 374 to 446    | °F   |
| Mold Temperature       | 61 to 104     | °F   |
| Injection              | Nominal Value | Unit |
| Injection Rate         | Moderate-Fast |      |
| Back Pressure          | 25.0 to 100   | psi  |
| Screw Speed            | 50 to 100     | rpm  |
| Cushion                | 0.150 to 1.00 | in   |

### Injection Notes

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

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Die C, 20 in/min