



# Monprene® IN-23040D

Teknor Apex Company - Thermoplastic Elastomer

## General Information

### Product Description

Monprene IN-23040D is a high performance thermoplastic elastomer, available in NAT, BLK, and colors, designed for the industrial market, including profiles and seals. Monprene IN-23040D is a high hardness, medium density, low flow, filled grade which exhibits good melt strength and is suitable for both injection molding and extrusion.

### General

|                   |                                                     |                                                                  |                                 |
|-------------------|-----------------------------------------------------|------------------------------------------------------------------|---------------------------------|
| Material Status   | • Commercial: Active                                |                                                                  |                                 |
| Availability      | • Africa & Middle East<br>• Asia Pacific            | • Europe<br>• Latin America                                      | • North America                 |
| Features          | • Chemical Resistant<br>• Filled<br>• Good Adhesion | • Good Melt Strength<br>• Good Processability<br>• High Hardness | • Low Flow<br>• Medium Density  |
| Uses              | • Gaskets<br>• Handles                              | • Industrial Applications<br>• Profiles                          | • Rubber Replacement<br>• Seals |
| RoHS Compliance   | • RoHS Compliant                                    |                                                                  |                                 |
| Appearance        | • Black                                             | • Natural Color                                                  | • Opaque                        |
| Forms             | • Pellets                                           |                                                                  |                                 |
| Processing Method | • Extrusion                                         | • Injection Molding                                              |                                 |

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

| Physical                                           | Nominal Value | Unit     | Test Method |
|----------------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                         | 1.03          |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)           | 5.0           | g/10 min | ASTM D1238  |
| Elastomers                                         | Nominal Value | Unit     | Test Method |
| Tensile Stress (100% Strain)                       | 1170          | psi      | ASTM D412   |
| Tensile Strength (Break)                           | 3120          | psi      | ASTM D412   |
| Tensile Elongation (Break)                         | 750           | %        | ASTM D412   |
| Hardness                                           | Nominal Value | Unit     | Test Method |
| Durometer Hardness                                 |               |          | ASTM D2240  |
| Shore D, 1 sec, Injection Molded                   | 40            |          |             |
| Shore D, 5 sec, Injection Molded                   | 38            |          |             |
| Fill Analysis                                      | Nominal Value | Unit     | Test Method |
| Apparent Viscosity (392°F, 206 sec <sup>-1</sup> ) | 430           | Pa·s     | ASTM D3835  |

## Processing Information

| Injection          | Nominal Value | Unit |
|--------------------|---------------|------|
| Rear Temperature   | 440 to 480    | °F   |
| Middle Temperature | 440 to 480    | °F   |
| Front Temperature  | 440 to 480    | °F   |
| Nozzle Temperature | 440 to 480    | °F   |

# Monprene® IN-23040D

## Teknor Apex Company - Thermoplastic Elastomer

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Processing (Melt) Temp | 440 to 480    | °F   |
| Mold Temperature       | 60 to 90      | °F   |
| Injection Pressure     | 200 to 800    | psi  |
| Injection Rate         | 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).

| Extrusion             | Nominal Value | Unit |
|-----------------------|---------------|------|
| Cylinder Zone 1 Temp. | 420 to 460    | °F   |
| Cylinder Zone 2 Temp. | 420 to 460    | °F   |
| Cylinder Zone 3 Temp. | 420 to 460    | °F   |
| Cylinder Zone 4 Temp. | 420 to 460    | °F   |
| Cylinder Zone 5 Temp. | 420 to 460    | °F   |
| Die Temperature       | 420 to 460    | °F   |

### Extrusion Notes

Screw Speed: 30 to 100 rpm

### Notes

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