



ENFLEX® EA3575A

ENPLAST Americas, a Ravago Group Company - Thermoplastic Elastomer

Tuesday, November 5, 2019

General Information

Product Description

75 Shore A TPE (Styrenic Block Copolymer based) for injection molding and extrusion applications. This grade offers soft/tactile feel and adhesion (overmolding) to Nylon.

General

| | | | |
|-------------------|-----------------------|-----------------------|-----------------------|
| Material Status | • Commercial: Active | | |
| Availability | • North America | | |
| Features | • Acid Resistant | • Good Colorability | • Recyclable Material |
| | • Alcohol Resistant | • Good Processability | • Soft |
| | • Base Resistant | • High Elasticity | • Solvent Resistant |
| | • Detergent Resistant | • Oil Resistant | • UV Resistant |
| | • Good Adhesion | • Ozone Resistant | |
| Processing Method | • Extrusion | • Injection Molding | |

ASTM & ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|-------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity | 0.950 | | ASTM D792 |
| Melt Mass-Flow Rate (230°C/2.16 kg) | 6.5 | g/10 min | ASTM D1238 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Stress (100% Strain) | 390 | psi | ASTM D412 |
| Tensile Strength (Break) | 875 | psi | ASTM D412 |
| Tensile Elongation (Break) | 400 | % | ASTM D412 |
| Tear Strength | 200 | lbf/in | ASTM D624 |
| Compression Set | | | ASTM D395B |
| 73°F, 22 hr | 27 | % | |
| 158°F, 22 hr | 48 | % | |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness | | | ASTM D2240 |
| Shore A, 10 sec, Extruded | 71 | | |
| Shore A, 10 sec, Injection Molded | 75 | | |
| Thermal | Nominal Value | Unit | Test Method |
| Brittleness Temperature | -61.6 | °F | ASTM D746 |
| Dynamic Service Temperature | 194 | °F | |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | 140 to 158 | °F |
| Drying Time | 2.0 to 3.0 | hr |
| Rear Temperature | 340 to 390 | °F |
| Middle Temperature | 445 to 465 | °F |
| Front Temperature | 465 to 480 | °F |
| Nozzle Temperature | 430 to 465 | °F |
| Processing (Melt) Temp | 445 to 480 | °F |
| Mold Temperature | 50 to 120 | °F |
| Injection Pressure | 750 to 1300 | psi |

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| Injection | Nominal Value | Unit |
|----------------|----------------|----------------------|
| Injection Rate | Fast | |
| Screw Speed | 50 to 200 | rpm |
| Clamp Tonnage | 2.5 to 3.5 | tons/in ² |
| Cushion | 0.200 to 0.500 | in |

Injection Notes

Holding Time: 5 to 7 Sec.

| Extrusion | Nominal Value | Unit |
|-----------------------|---------------|------|
| Drying Temperature | 140 to 158 | °F |
| Drying Time | 2.0 to 3.0 | hr |
| Hopper Temperature | 320 to 355 | °F |
| Cylinder Zone 1 Temp. | 445 to 465 | °F |
| Cylinder Zone 3 Temp. | 465 to 480 | °F |
| Cylinder Zone 5 Temp. | 465 to 480 | °F |
| Adapter Temperature | 445 to 480 | °F |
| Melt Temperature | 445 to 480 | °F |
| Die Temperature | 445 to 480 | °F |
| Screw L/D Ratio | 24.0:1.0 | |

Extrusion Notes

Screw: L/D 20:1 or greater (L/D 24:1 preferred)

Cooling Water: 60 - 85°F (15-30°C)

Screw Speed: 100 - 200 rpm

Screen Pack: 20/40/60

Notes

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