



ENFLEX® V1060A BLK UV

ENPLAST Americas, a Ravago Group Company - Thermoplastic Vulcanizate

Wednesday, November 6, 2019

General Information

Product Description

Enflex V1060A BLK UV TPV (thermoplastic vulcanizate) is a fully weatherable black EPDM/PP compound. It is designed to replace thermoset elastomers such as EPDM or polychloroprene, and traditional thermoplastic TPVs. Enflex V grades provide the performance of vulcanized rubber with the advantage of low-cost thermoplastic processing.

General

| | |
|-------------------|---|
| Material Status | • Commercial: Active |
| Availability | • North America |
| Features | <ul style="list-style-type: none">• Acid Resistant• Alcohol Resistant• Base Resistant• Detergent Resistant• Good Processability• Good Weather Resistance• High Heat Resistance• Low Compression Set• Oil Resistant• Ozone Resistant• Recyclable Material• Solvent Resistant• UV Resistant |
| Appearance | • Black |
| Processing Method | <ul style="list-style-type: none">• Extrusion• Injection Molding |

ASTM & ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|----------------------------------|---------------|--------|-------------|
| Density / Specific Gravity | 0.972 | | ASTM D792 |
| Elastomers | Nominal Value | Unit | Test Method |
| Tensile Stress (100% Strain) | 375 | psi | ASTM D412 |
| Tensile Strength (Break) | 972 | psi | ASTM D412 |
| Tensile Elongation (Break) | 500 | % | ASTM D412 |
| Tear Strength ² | 148 | lbf/in | ASTM D624 |
| Compression Set | | | ASTM D395 |
| 158°F, 22 hr | 32 | % | |
| 257°F, 70 hr | 45 | % | |
| Hardness | Nominal Value | Unit | Test Method |
| Durometer Hardness | | | ASTM D2240 |
| Shore A, 5 sec, Extruded | 57 | | |
| Shore A, 5 sec, Injection Molded | 60 | | |
| Thermal | Nominal Value | Unit | Test Method |
| Brittleness Temperature | -76.0 | °F | ASTM D746 |
| Melting Temperature | 317 | °F | ASTM D1238 |
| Dynamic Service Temperature | 266 | °F | |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | 180 | °F |
| Drying Time | 2.0 to 4.0 | hr |
| Suggested Max Moisture | 0.080 | % |
| Rear Temperature | 350 to 370 | °F |
| Middle Temperature | 360 to 380 | °F |
| Front Temperature | 370 to 390 | °F |
| Nozzle Temperature | 390 to 430 | °F |

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| Injection | Nominal Value | Unit |
|------------------------|----------------|----------------------|
| Processing (Melt) Temp | 390 to 450 | °F |
| Mold Temperature | 50 to 120 | °F |
| Injection Pressure | 750 to 1300 | psi |
| Injection Rate | Fast | |
| Screw Speed | 50 to 200 | rpm |
| Clamp Tonnage | 3.0 to 5.0 | tons/in ² |
| Cushion | 0.200 to 0.500 | in |

Injection Notes

Holding Time: 5 to 7 Sec.
Cooling Time: 30 to 50 Sec.

| Extrusion | Nominal Value | Unit |
|-----------------------|---------------|------|
| Hopper Temperature | 320 to 350 | °F |
| Cylinder Zone 1 Temp. | 340 to 375 | °F |
| Cylinder Zone 2 Temp. | 340 to 375 | °F |
| Cylinder Zone 3 Temp. | 340 to 375 | °F |
| Cylinder Zone 4 Temp. | 340 to 375 | °F |
| Cylinder Zone 5 Temp. | 340 to 375 | °F |
| Adapter Temperature | 375 to 410 | °F |
| Melt Temperature | 375 to 390 | °F |
| Die Temperature | 375 to 410 | °F |
| Screw L/D Ratio | 24.0:1.0 | |

Extrusion Notes

Screw: L/D 20:1 or greater (L/D 24:1 preferred)
Compression Zone: 355 - 390°F (180 - 200°C)
Metering Zone: 375 to 410°F (190 to 210°C)
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.

² Die C