Enflex V1050D

Enflex V1050D TPV (thermoplastic vulcanizate) is a general purpose rigid black EPDM/PP compound available in both natural and black. This grade is design for injection molding, extrusion and blow molding applications requiring **high rigidity with high heat resistance**.

Properties	Value	Unit	Standard
Physical			
Hardness - Injection Molded, 5 sec	51	Shore D	ASTM D2240
Hardness - Extruded, 5 sec	50	Shore D	ASTM D2240
Density	0.95	g/cm3	ASTM D792
Mechanical			
Tensile Strength at Break	3,626 (25.0)	psi (MPa)	ASTM D412
Elongation at Break	720	%	ASTM D412
100% Modulus	1,595 (11.8)	psi (MPa)	ASTM D412
Tear Strength	102	kN/m	ASTM D624, Die C
Compression Set			
22h / 70 ◦C	70	%	ASTM D395
70h / 125 ◦C	90	%	ASTM D395
Service Temperatures			
Brittleness Point	-30	°C	ASTM D746
Dynamic Service Temperature	130	°C	
Rheology			
Melt Temperature	159°C (317°F)	g/cm3	ASTM D1238

Features

Good heat resistance (up to 130C)
Rubberlike elasticity, low compression set
Ease of processing
Compatible with PP (overmolding, blending)
Recyclability

Environmental Resistance

Ozone – Excellent
UV – Excellent
Alcohol = Excellent
Oils and Solvents - Good
Detergent – Good
Weak Acids and Bases – Good to excellent

Plant Location:
616 111th St.
Arlington, TX 76011
Ph # (817) 635-4770

Headquarters:
1900 Summit Tower Blvd
Suite 900
Orlando, FL 32810
Ph # (407) 875-9595

www.ravago.com
www.enplastamericas.com

Processing Parameters

Drying Conditions

Enflex V grades require drying prior to processing as they are hygroscopic and absorb moisture. Material should be dried for 2-4 hours at 180°F (82°C). Moisture content below .08% prior to processing

Injection Molding Conditions

Temperatures:

- Rear: 350 – 370°F (177 - 188°C)
- Middle: 360 –380°F (182 – 193°C)
- Front: 370 – 390°F (188 – 199°C)
- Nozzle: 390 – 430°F (199 – 221°C)
- Melt Temperature: 390 – 450°F (199– 230°C)
- Mold Temperature: 50 – 120°F (10 – 50°C)

Injection Pressure: 750 – 1300psi
Injection Speed: Fast (0.5 – 2.0 seconds)
Screw Speed: 50 – 200 rpm
Hold Times: 5-7 seconds
Cushion: 0.2 - 0.5 inch
Cooling Times: 30 – 50 seconds
Clamp Tonnage: 3.0 to 5.0 tons/in^2

Extrusion Conditions

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

- Feed Throat: 320-350°F (160 – 180°C)
- Feed Zone: 340 – 375°F (170 – 190°C)
- Compression Zone: 355 – 390°F (180 – 200°C)
- Metering Zone: 375 – 410°F (190 – 210°C)
- Die/Adapter: 375 – 410°F (190 – 210°C)
- Melt Temperature: 375 – 390°F (190 – 200°C)
- Cooling Water: 60 – 85°F (15-30°C)

Screw Speed: 100 - 200 rpm
Screen Pack: 20/40/60

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