



Enflex S3090A

Product Description:

90 Shore A TPE (Styrenic Block Copolymer based) available in both black and natural for injection molding and extrusion applications. This grade offers soft/tactile feel, adhesion (overmolding or co-extrusion) to Polypropylene, good weatherability.

Properties	Value	Unit	Standard
Physical			
Hardness - Injection Molded, 10 sec	92	Shore A	ASTM D2240
Hardness - Extruded, 10 sec	90	Shore A	ASTM D2240
Density	0.89	g/cm3	ASTM D792
Mechanical			
Tensile Strength at Break	1,900 (13.1)	psi (MPa)	ASTM D412
Elongation at Break	650	%	ASTM D412
100% Modulus	765 (5.3)	psi (MPa)	ASTM D412
Tear Strength	360 (63)	lbs/in (kN/m)	ASTM D624
Compression Set			
22h / 23 °C	29	%	ASTM D395B
22h / 70 °C	44	%	ASTM D395B
Service Temperatures			
Brittleness Point	-60	°C	ASTM D746
Dynamic Service Temperature	90	°C	
Rheology			
Melt Flow Rate, 230°C / 2.16kg load	3.0	g/cm3	ASTM D1238

Features

Good Heat Resistance (up to 70°C)
 Rubberlike Elasticity with good compression set (up to 70°C)
 Ease of Coloring by proper masterbatch (PP/PE preferred)
 Ease of processing
 Recyclability
 Overmold adhesion to Polypropylene and TPO

Environmental Resistance

Ozone – Excellent
 UV – Good to Excellent
 Water – 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
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ISO 9001-2008

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Processing Parameters

Drying Conditions

It is not necessary to pre-dry this material but in the event of moisture accumulation or evidence of splay, the material can be dried for 2-3 hours at 150 -160°F (66 – 71°C).

Injection Molding Conditions

Temperatures:

Rear: 340 – 390°F (171 – 200°C)
Middle: 350 – 410°F (177 – 210°)
Front: 375 – 430°F (191 – 221°C)
Nozzle: 390 – 445°F (200 – 230°C)
Melt Temperature: 390 – 430°F (200 – 220°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

Clamp Tonnage: 2.0 to 3.5 tons/in²

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

†The data listed here fall within the normal range of product properties, but they should not be used to establish specification limits or used alone as a basis for design. This information is not intended as a warranty of any kind. Buyers must make their own representative test and assume all risks of use, whether used alone or in combination with other products. Ravago Manufacturing Americas, LLC assumes no obligation or liability of any advice furnished by it or results obtained with respect to these products. All warranties expressed or implied including warranties of merchantability for a particular purpose or use are excluded and disclaimed. Ravago Manufacturing Americas, LLC assumes no liability for use of products in infringement of any patent. The foregoing limitation of remedy and exclusion of liability is reflected in and is part of the consideration for the price, at which the products are sold by Ravago Manufacturing Americas, LLC. All data displayed herein has been obtained via testing of injected molded specimens of natural color. Pigmentation may affect certain properties to various degrees.

*This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

‡ Shrinkage data are general guidelines and are only intended to allow comparison to other materials. They should not be used as the sole source of information for generating core and cavity mold dimensions.

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