



## Enflex S3025A

**Product Description:**

25 Shore A TPE (Styrenic Block Copolymer based) available in both black and natural for injection molding and extrusion applications, with low compression set and good heat resistance.

Properties	Value	Unit	Standard
<b>Physical</b>			
Hardness - Injection Molded, 10 sec	25	Shore A	ASTM D2240
Hardness - Extruded, 10 sec	23	Shore A	ASTM D2240
Density	0.89	g/cm <sup>3</sup>	ASTM D792
<b>Mechanical</b>			
Tensile Strength at Break	525 (3.6)	psi (MPa)	ASTM D412
Elongation at Break	750	%	ASTM D412
100% Modulus	125 (0.86)	psi (MPa)	ASTM D412
Tear Strength	105 (18.4)	lbs/in (kN/m)	ASTM D624
<b>Compression Set</b>			
22h / 23 °C	17	%	ASTM D395B
22h / 70 °C	59	%	ASTM D395B
<b>Service Temperatures</b>			
Brittleness Point	-60	°C	ASTM D746
Dynamic Service Temperature	90	°C	
<b>Rheology</b>			
Melt Flow Rate, 230°C / 2.16kg load	8.0	g/cm <sup>3</sup>	ASTM D1238



## **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°C)
- 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/in<sup>2</sup>

### **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