



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 |
|-------------------------------------|------------|-------------------|------------|
| Physical | | | |
| Hardness - Injection Molded, 10 sec | 25 | Shore A | ASTM D2240 |
| Hardness - Extruded, 10 sec | 23 | Shore A | ASTM D2240 |
| Density | 0.89 | g/cm ³ | ASTM D792 |
| Mechanical | | | |
| 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 |
| Compression Set | | | |
| 22h / 23 °C | 17 | % | ASTM D395B |
| 22h / 70 °C | 59 | % | ASTM D395B |
| Service Temperatures | | | |
| Brittleness Point | -60 | °C | ASTM D746 |
| Dynamic Service Temperature | 90 | °C | |
| Rheology | | | |
| Melt Flow Rate, 230°C / 2.16kg load | 8.0 | g/cm ³ | 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/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