EcoTPE
Flow 80

Specifications

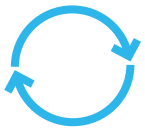
Enhanced flowability for injection moulding of larger parts

- Recycled Thermoplastic Elastomers (TPS-SEBS)
- 30-50 % Recycled Content
- Pellets with Black Colour

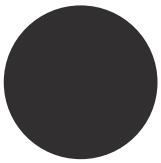
Processing

- **Pre-Drying** is generally not necessary but can be carried out for 3-4 h at 70 °C.
- **Cylinder Temperature:** Injection moulding recommended with 180-210 °C barrel temperature.
- **Mould Temperature:** 30-60 °C recommended mould temperature.

In short



Recycled Thermoplastic Elastomers



Black Colour Pellets

30–50 %

Amount of re-cycled content

	Hardness	Tensile Strength	Stress at 100% Strain	Stress at 300% Strain	Elongation at break	Tear Strength
	ISO 868 Shore A	ISO 37 MPa	ISO 37 MPa	ISO 37 MPa	ISO 37 %	ISO 34 kN/m
EcoTPE Flow 80	80	6.7	3.8	5.4	440	14

Injection moulding guide

For EcoTPE

Plasticising: Complete the plasticising just prior the start of the next cycle. Adjust the screw speed and backpressure to obtain the desired melt temperature. The screw speed depends on the diameter of the screw. Contact the material supplier for more support regarding plasticising and screw speeds.

Decompression: 5-15 mm.

Injection Pressure: Overfilling and overheating can occur when too high injection pressures are used. To avoid the above-mentioned defects, use the minimal injection pressure required for a uniform filling of the mould.

Injection Rate: EcoTPE exhibit shear thinning that reduces the viscosity by increasing the share rate. Thus, for filling the mould moderate to fast injections rates are necessary dependent on the part size.

Holding phase: It is recommended to optimize the holding pressure and holding time to avoid defects like overfilling and shrink marks. Overfilling is more common for soft materials like thermoplastic elastomers. Thus, the holding pressure should be as low as possible to avoid this defect, especially for the softer grades. In addition, it is advantageous to use a small material cushion of about 5 mm.

Venting of the mould is required to avoid air inclusions because moderate/high injection rates are used during injection moulding of EcoTPE.

Clamping Force: There is generally no need to apply a high clamping force for EcoTPE. A clamping force of 2.5-5 kN/cm^2 projected area of the moulded part is recommended.

Cooling Time: Generally, cooling times of 15-25 s is sufficient for parts up to 2 mm thickness and longer cooling times with increasing thickness of the moulded parts.

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