ESTER INDUSTRIES LTD.

Product Data Sheet
ESTOPLAST EP1500BB01
[PBT-UF] Compound

Product Description

Polybutylene Terephthalate - Unfilled

Product Applications

Automotive: Medium viscosity, Head Lamp Bezel

Electrical & Electronic: E-motor components, Lightings and Lamp fittings

General

Material Status	• Commercial : Active
Filler/Reinforcement	• Unfilled
Forms	• Pellets
Additive	• Mold Release
Features	• Medium Viscosity
Appearance	• Black
Processing Method	• Injection molding

Physical	Typical Value	Unit	Test Method
Specific Gravity	1.30		ASTM D -792
Water Absorption Saturation, 23°C Equilibrium, 23°C, 50%RH	 0.5 0.25	 % %	ISO-62

Mechanical	Dry	Unit	Test Method
Tensile Stress (Yield)	53	MPa	ASTM D-638
Tensile Strain (Break)	10	%	ASTM D-638
Flexural Strength	82	MPa	ASTM D-790
IZOD Impact Strength (23°C) Notch Unnotch	 50 NB	 J/m J/m	ASTM D-256A

Thermal	Dry	Unit	Test Method
Heat Deflection Temperature 0.45 MPa Unannealed 1.8 MPa Unannealed	 140 70	 °C °C	 ASTM D-648 ASTM D-648

Flammability	Dry	Unit	Test Method
Flammability Classification 1.50mm	HB	-	UL94

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Electrical	Dry	Unit	Test Method
Comparative Tracking Index	550	-	IEC 60112
Volume Resistivity	1.E^{+}14	Ohm-cm	ASTM D 257

Injection Molding – EP1500BB01

Drying Conditions

Drying Time(hour)	Temperature	Remarks
3-4	110-120^{o}C	Temperature should not be more than 120^{o}C to avoid discoloration Moisture content after drying should be <0.1% Avoid sudden cooling of dry pellet

Injection Molding Temperatures (^{o}C)				
Mold	Melt	Nozzle	Centre	Feed zone
100 – 120	240 – 250	250 -260	250 -260	235-240

Physical form and storage

ESTOPLAST EP is supplied in pellet form. It should be pre-dried as per the guideline mentioned above prior to molding. Standard packing size is 25kg. In order to prevent moisture pick up and contamination, supplied packaging should be kept closed and undamaged.

Product Safety

ESTOPLAST EP is thermally stable up to 280^{o}C and does not give rise to hazardous material due to degradation or evolution of gases and vapors. ESTOPLAST EP decomposes above 350^{o}C and gives unsaturated hydrocarbons and small quantity of aldehydes.
For more information on safety, refer individual product MSDS. Available on request.

Note

All information supplied in this publication is based on our current knowledge and experience. The data provided fall within the normal range of product properties and relate only to the specific material designed. The data provided should not be used to establish specification limits or used alone as the basis of design. ESTER assumes no liability and makes no warranties of any kind, expressed or implied, whatsoever in respect of application, processing or use made of aforementioned information or product.