PolyOne Dynalloy™ OBC 8100-N75 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

Dynalloy™ OBC8100-N75 is a TPE developed utilizing the unique rubber properties of Dow INFUSE™ Olefin Block Copolymers. The 8100 Series has been specifically developed for applications requiring the TPE to be in direct contact with food. New Product. Commercial specifications have not been established. - Adhesion to Polypropylene, Low Density Polyethylene - Direct Food Contact - Enhanced Flow Properties - Excellent ColorabilityColor concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Dynalloy™ OBC 8100-N75. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25 - 40 g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. Concentrates based on PVC should not be used. The final determination of color concentrate suitability should be determined by customer trials. Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP). Drying is not Required Injection Speed: 1 to 3 in/sec 1st Stage - Boost Pressure: 175 to 800 psi 2nd Stage - Hold Pressure: 30% of Boost Hold Time (Thick Part): 3 to 10 sec Hold Time (Thin Part): 1 to 3 secInformation provided by PolyOne

Order this product through the following link:
http://www.lookpolymers.com/polymer_PolyOne-Dynalloy-OBC-8100-N75-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.02 g/cc	1.02 g/cc	ASTM D792
Viscosity	28100 cP @Shear Rate 11200 1/s, Temperature 200 °C	28100 cP @Shear Rate 11200 1/s, Temperature 392 °F	ASTM D3835
	120000 cP @Shear Rate 1340 1/s, Temperature 200 °C	120000 cP @Shear Rate 1340 1/s, Temperature 392 °F	ASTM D3835
Linear Mold Shrinkage, Flow	0.0060 - 0.013 cm/cm	0.0060 - 0.013 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	0.0060 - 0.013 cm/cm	0.0060 - 0.013 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	71	71	10 sec; ASTM D2240
Tensile Strength at Break	5.63 MPa @Temperature 23.0 °C	817 psi @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tensile Stress	3.56 MPa @Strain 100 %, Temperature 23.0 °C	516 psi @Strain 100 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
	4.27 MPa	619 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 300 %, Temperature 23.0 °C	@Strain 300 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
Elongation at Break	690 % @Temperature 23.0 °C	690 % @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tear Strength	36.4 kN/m	208 pli	ASTM D624
Compression Set	30 % @Temperature 23.0 °C, Time 79200 sec	30 % @Temperature 73.4 °F, Time 22.0 hour	ASTM D395B

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	160 - 188 °C	320 - 370 °F	
Middle Barrel Temperature	177 - 193 °C	351 - 379 °F	
Front Barrel Temperature	182 - 210 °C	360 - 410 °F	
Nozzle Temperature	193 - 216 °C	379 - 421 °F	
Mold Temperature	15.6 - 26.7 °C	60.1 - 80.1 °F	
Back Pressure	0.000 - 0.689 MPa	0.000 - 99.9 psi	
Screw Speed	25 - 100 rpm	25 - 100 rpm	

Descriptive Properties	Value	Comments
Agency Ratings	BfR Food Contact, Unspecified Rating	Please contact GLS Thermoplastic Elastomers for a copy of the BfR compliance letter.
	EU 2002/72/EC	Please contact GLS Thermoplastic Elastomers for a copy of the EU compliance letter.
	FDA 21 CFR 177.2600	Please contact GLS Thermoplastic Elastomers for a copy of the FDA compliance letter.
Appearance	Natural Color	
Features	Food Contact Acceptable	
	Good Colorability	
	Good Flow	
Forms	Pellets	
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	
Manufacturer /	GLS Thermoplastic Elastomers	

Supplier Descriptive Properties	Value	Comments
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
RoHS Compliance	RoHS Compliant	
Uses	Household Goods	
	Kitchenware	
	Non-specific Food Applications	
	Overmolding	
	Soft Touch Applications	

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