Telcar® TL-8451 BLK 940

Thermoplastic Elastomer

Teknor Apex Company

Message:

Telcar TL-8451 BLK 940 is a high performance, halogen-free thermoplastic elastomer designed for electrical applications requireing flexibility over a wide termperture range. Telcar TL-8451 BLK 940 is a high durometer grade that is UV stablized and RoHS compliant. This grade is UL listed and is suitable for both injection molding and extrusion.

General Information	
Features	High elasticity
	High tensile strength
	Good UV resistance
	Good heat aging resistance
	Good flexibility
	Good coloring
	Medium liquidity
	Ozone resistance
	Good weather resistance
	Sunlight resistance, 720 hours
	General
	Halogen-free
	Extended tensile rate
Uses	Underground cable
	Cable sheath
	Electrical wire sheath material
	Electrical conductor insulation material
	Wire and cable applications
	Wire sheath
	Industrial cable insulation material
	Connector
	cord sheath
	Terminal cable sheath material
Wire Types	SJEOW
Agency Ratings	UL 1581 .QMTT2.E73402 2
RoHS Compliance	RoHS compliance
UL File Number	QMTT2.E73402
Appearance	Opacity
Forms	Particle
Processing Method	Extrusion

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.998	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	19	g/10 min	ASTM D1238
Carbon Black Content	2.5	%	ASTM D1603
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A)	82		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Deformation Under Load [1] (150°C)	6.00	%	ASTM D621
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Break)	16.5	MPa	ASTM D412
Tensile Elongation (Break)	600	%	ASTM D412
Aging	**Nominal Value**	**Unit**	**Test Method**
Change in Tensile Strength in Air (136°C, 168 hr)	110	%	ASTM D573
Change in Ultimate Elongation in Air (136°C, 168 hr)	89	%	ASTM D573
Change in Tensile Strength (60°C, 168 hr, in IRM 902 Oil)	86	%	ASTM D471
Change in Ultimate Elongation (60°C, 168 hr, in IRM 902 Oil)	93	%	ASTM D471
Thermal	**Nominal Value**	**Unit**	**Test Method**
Continuous Use Temperature	105	°C	UL 1581
Brittleness Temperature	< -60.0	°C	ASTM D746
RTI Elec	90.0	°C	UL 746
RTI	90.0	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength	38	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
1 kHz	2.10		ASTM D150
1 MHz	2.33		ASTM D150
Dissipation Factor			ASTM D150
1 kHz	2.0E-4		ASTM D150
1 MHz	1.0E-4		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.810 mm, All Colors)	HB		UL 94
Oxygen Index	18	%	ASTM D2863
Additional Information			
最高连续工作温度,UL-1581:105°C			
Injection	**Nominal Value**	**Unit**	
Rear Temperature	199 - 216	°C	
Middle Temperature	213 - 221	°C	

Front Temperature	221 - 227	°C
Nozzle Temperature	221 - 229	°C
Processing (Melt) Temp	221 - 229	°C
Mold Temperature	25.0 - 65.6	°C
Injection Pressure	1.38 - 6.89	MPa
Injection Rate	Moderate-Fast	
Back Pressure	0.172 - 0.345	MPa
Screw Speed	50 - 100	rpm
Cushion	3.81 - 25.4	mm

Injection instructions
无需干燥.但如果湿度过大,则将粒料在150°F (65°C)的温度下干燥2-4小时.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	193 - 210	°C
Cylinder Zone 2 Temp.	199 - 216	°C
Cylinder Zone 3 Temp.	213 - 221	°C
Cylinder Zone 5 Temp.	221 - 227	°C
Die Temperature	221 - 229	°C

Extrusion instructions
螺杆转速30 - 100 rpm

NOTE	
1.	Weight 2000 grams

Recommended distributors for this material

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