Telcar® TELC-1000-105

Thermoplastic Elastomer

Teknor Apex Company

Message:

Telcar TELC 1000-105 is a general purpose thermoplastic elastomer designed for the industrial market. Telcar TELC 1000-105 is a high hardness, low density grade suitable for both injection molding and extrusion.

General Information		
UL YellowCard	E54709-615351	E142591-100745000
Features	Low Specific Gravity Without Fillers Low density Low liquidity High hardness	
Uses	Industrial application General	
Appearance	Translucent	
Forms	Particle	
Processing Method	Extrusion Injection molding	

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.890	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	4.5	g/10 min	ASTM D1238
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D, 5 sec)	59		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Flexural Modulus	655	MPa	ASTM D790
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			ASTM D412
Transverse flow: 100% strain	11.0	MPa	ASTM D412
Flow: 100% strain	13.1	MPa	ASTM D412
Tensile Strength			ASTM D412
Transverse flow: Fracture	13.4	MPa	ASTM D412
Flow: Fracture	15.9	MPa	ASTM D412
Tensile Elongation			ASTM D412
Transverse flow: Fracture	290	%	ASTM D412
Flow: Fracture	230	%	ASTM D412

Tear Strength - Across Flow [1]	121	kN/m	ASTM D624
Compression Set			ASTM D395
23°C, 22 hr	54	%	ASTM D395
70°C, 22 hr	74	%	ASTM D395
90°C, 70 hr	93	%	ASTM D395
Aging	**Nominal Value**	**Unit**	**Test Method**
Change in Tensile Strength in Air			ISO 188
110°C, 1008 hr	3.4	%	ISO 188
125°C, 168 hr	1.8	%	ISO 188
Change in Tensile Strain at Break in Air			ISO 188
110°C, 1008 hr	-34	%	ISO 188
125°C, 168 hr	-19	%	ISO 188
Change in Shore Hardness in Air (supported, 110°C, 1008 hr)	3.2		ISO 188
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature	-55.0	°C	ASTM D746
RTI Elec	50.0	°C	UL 746
RTI Imp	50.0	°C	UL 746
RTI	50.0	°C	UL 746
Flammability	**Nominal Value**		**Test Method**
Flame Rating (0.750 mm, All Colors)	HB		UL 94
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Apparent Viscosity (200°C, 206 sec^-1)	378	Pa·s	ASTM D3835

Legal statement

Injection	Nominal Value	Unit
Rear Temperature	171 - 193	°C
Middle Temperature	177 - 199	°C
Front Temperature	182 - 204	°C
Nozzle Temperature	188 - 210	°C
Processing (Melt) Temp	188 - 210	°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

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).		
Extrusion	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	2.0	hr
Cylinder Zone 1 Temp.	166 - 188	°C
Cylinder Zone 2 Temp.	171 - 193	°C
Cylinder Zone 3 Temp.	177 - 199	°C
Cylinder Zone 5 Temp.	182 - 204	°C
Die Temperature	190 - 210	°C
Extrusion instructions		
螺杆转速30 - 100 rpm		
NOTE		
1.	C mould	

Recommended distributors for this material

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