

Sarlink® TPE EE-2645DN XRD (PRELIMINARY DATA)

Thermoplastic Elastomer

Teknor Apex Company

Message:

Sarlink EE-2645DN XRD is a general purpose thermoplastic elastomer used in automotive applications. Sarlink EE-2645DN XRD is a high hardness grade made with good UV resistance. This grade can be processed by extrusion.

General Information			
Features	Low Specific Gravity		
	Sunlight Resistant		
	Low density		
	Low liquidity		
	Fill		
	High hardness		
	UV absorption		
Uses	Application in Automobile Field		
	Automotive exterior parts		
	Car exterior decoration		
Appearance	Opacity		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.950	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ISO 868
Shore D, 1 second, injection molding	46		ISO 868
Shore D, 5 seconds, injection molding	45		ISO 868
Shore D, 15 seconds, injection molding	43		ISO 868
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ¹			ISO 37
Transverse flow: 100% strain	7.48	MPa	ISO 37
Flow: 100% strain	11.4	MPa	ISO 37
Tensile Stress ²			ISO 37
Transverse flow: Fracture	20.2	MPa	ISO 37

Flow: Fracture	13.9	MPa	ISO 37
Tensile Elongation ³			ISO 37
Transverse flow: Fracture	800	%	ISO 37
Flow: Fracture	450	%	ISO 37
Tear Strength ⁴			ISO 34-1
Transverse flow	89	kN/m	ISO 34-1
Flow	78	kN/m	ISO 34-1
Compression Set ⁵			ISO 815
23°C, 22 hr	16	%	ISO 815
70°C, 22 hr	63	%	ISO 815
90°C, 70 hr	57	%	ISO 815
125°C, 70 hr	80	%	ISO 815
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air ⁶			ISO 188
Transverse flow: 110°C, 1008 hr	5.8	%	ISO 188
Flow: 110°C, 1008 hr	7.3	%	ISO 188
Transverse flow: 100% strain 110°C, 1008 hr	16	%	ISO 188
Flow: 100% strain 110°C, 1008 hr	20	%	ISO 188
Transverse flow: 125°C, 168 hr	2.5	%	ISO 188
Flow: 125°C, 168 hr	10	%	ISO 188
Transverse flow: 100% strain 125°C, 168 hr	16	%	ISO 188
Flow: 100% strain 125°C, 168 hr	22	%	ISO 188
Change in Tensile Strain at Break in Air ⁷			ISO 188
Transverse flow: 110°C, 1008 hr	-3.4	%	ISO 188
Flow: 110°C, 1008 hr	-30	%	ISO 188
Transverse flow: 125°C, 168 hr	-7.7	%	ISO 188
Flow: 125°C, 168 hr	-33	%	ISO 188
Change in Shore Hardness in Air			
Support d, 110°C, 1008 hr ⁸	1.2		ISO 188
Support d, 110°C, 1008 hr ⁹	0.30		ISO 188
Support d, 125°C, 168 hr ¹⁰	0.20		ISO 188
Support d, 125°C, 168 hr ¹¹	0.0		ISO 188
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (200°C, 206 sec ⁻¹)	436	Pa · s	ASTM D3835
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
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

Screw Speed: 30 to 100 rpm

NOTE

1.	Type 1, 510mm/min
2.	Type 1, 510mm/min
3.	Type 1, 510mm/min
4.	B method, right angle specimen (without cut), 510mm/min
5.	Type a
6.	Type 1
7.	Type 1
8.	5 sec
9.	1 sec
10.	15 sec
11.	5 sec

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