



Sarlink® TPE RV-2243D BLK 111 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Sarlink TPE RV-2243D BLK 111 is a high performance thermoplastic Elastomer used in transportation applications. Sarlink TPE RV-2243D BLK 111 is a high hardness, low density, RoHS compliant grade that can be processed by injection molding and extrusion.

General

Material Status	• Commercial: Active ¹		
Availability	• North America		
Features	• Good Weather Resistance • High Hardness • Light Stabilized	• Low Density • Low Flow • Low Specific Gravity	• Sunlight Resistant • UV Resistant • Without Fillers
Uses	• Automotive Applications • Automotive Exterior Parts	• Automotive Exterior Trim • Rubber Replacement	
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density	0.900	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	5.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ³			ISO 37
Across Flow : 100% Strain	1140	psi	
Flow : 100% Strain	1550	psi	
Tensile Stress ³			ISO 37
Across Flow : Break	2000	psi	
Flow : Break	1940	psi	
Tensile Elongation ³			ISO 37
Across Flow : Break	730	%	
Flow : Break	610	%	
Tear Strength ⁴			ISO 34-1
Across Flow	525	lbf/in	
Flow	436	lbf/in	
Compression Set ⁵			ISO 815
73°F, 22 hr	37	%	
158°F, 22 hr	71	%	
194°F, 70 hr	82	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore D, 1 sec, Injection Molded	47		
Shore D, 5 sec, Injection Molded	45		
Shore D, 15 sec, Injection Molded	43		

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Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air ⁶			ISO 188
Across Flow : 230°F, 1008 hr	-8.0	%	
Flow : 230°F, 1008 hr	-0.70	%	
Across Flow : 100% Strain 230°F, 1008 hr	23	%	
Flow : 100% Strain 230°F, 1008 hr	24	%	
Across Flow : 257°F, 168 hr	-7.2	%	
Flow : 257°F, 168 hr	2.2	%	
Across Flow : 100% Strain 257°F, 168 hr	25	%	
Flow : 100% Strain 257°F, 168 hr	28	%	
Change in Tensile Strain at Break in Air ⁶			ISO 188
Across Flow : 230°F, 1008 hr	-7.6	%	
Flow : 230°F, 1008 hr	-57	%	
Across Flow : 257°F, 168 hr	-7.6	%	
Flow : 257°F, 168 hr	-58	%	
Change in Shore Hardness in Air			ISO 188
Shore D, 230°F, 1008 hr ⁷	4.2		
Shore D, 230°F, 1008 hr ⁸	4.2		
Shore D, 230°F, 1008 hr ⁹	4.1		
Shore D, 257°F, 168 hr ⁷	5.2		
Shore D, 257°F, 168 hr ⁸	5.0		
Shore D, 257°F, 168 hr ⁹	4.5		
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec ⁻¹)	309	Pa·s	ASTM D3835

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	390 to 410	°F
Middle Temperature	400 to 420	°F
Front Temperature	410 to 430	°F
Nozzle Temperature	420 to 440	°F
Processing (Melt) Temp	420 to 440	°F
Mold Temperature	95 to 150	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Fast	
Back Pressure	25.0 to 125	psi
Screw Speed	50 to 120	rpm
Cushion	0.150 to 1.00	in

Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

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Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	380 to 400	°F
Cylinder Zone 2 Temp.	390 to 410	°F
Cylinder Zone 3 Temp.	400 to 420	°F
Cylinder Zone 4 Temp.	400 to 420	°F
Cylinder Zone 5 Temp.	410 to 430	°F
Die Temperature	420 to 440	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

¹ This grade has limited distribution
² Typical properties: these are not to be construed as specifications.
³ Type 1, 20 in/min
⁴ Method Ba, Angle (Unnicked), 20 in/min
⁵ Type A
⁶ Type 1
⁷ 15 sec
⁸ 5 sec
⁹ 1 sec