OnFlex™ HT 7000-45N

Thermoplastic Elastomer

Key Characteristics

Product Description			
OnFlex™ HT 7000-45N is a hydrogenated styrenic block copolymers based Compound. This Compound combines good mechanical properties, good flow ability and good heat resistance, and it has been treated with an antifungal product (Zinc Pyrithione).			
General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Flow • High Heat Resistance	• Low Compression Set • Ozone Resistant	
Uses	• Appliance Components	• Pipe Seals	
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density			ISO 1183
73°F (23°C)	1.00 g/cm³	1.00 g/cm³	
73°F (23°C) [2]	1.00 g/cm³	1.00 g/cm³	
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Abrasion Loss			ISO 4649
0.24 in (6.00 mm)	221 mm³	221 mm³	
0.24 in (6.00 mm) [2]	204 mm³	204 mm³	
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress [3]			DIN 53504
Break, 73°F (23°C), 0.0787 in (2.00 mm)	957 psi	6.60 MPa	
Break, 73°F (23°C), 0.0787 in (2.00 mm) [2]	928 psi	6.40 MPa	
Tensile Elongation [3]			DIN 53504
Break, 73°F (23°C), 0.0787 in (2.00 mm)	780 %	780 %	
Break, 73°F (23°C), 0.0787 in (2.00 mm) [2]	730 %	730 %	
Tear Strength			ISO 34-1
73°F (23°C), 0.0787 in (2.00 mm)	135 lbf/in	23.6 kN/m	
73°F (23°C), 0.0787 in (2.00 mm) [2]	126 lbf/in	22.0 kN/m	
Compression Set			ISO 815
73°F (23°C), 72 hr	16 %	16 %	
73°F (23°C), 72 hr [2]	20 %	20 %	
158°F (70°C), 22 hr	34 %	34 %	
158°F (70°C), 22 hr [2]	29 %	29 %	
212°F (100°C), 22 hr	45 %	45 %	
212°F (100°C), 22 hr [2]	46 %	46 %	

Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Shore Hardness			ISO 7619
Shore A, 10 sec, 73°F (23°C) [4]	50	50	
Shore A, 10 sec, 73°F (23°C) [5]	48	48	
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ISO 11443
392°F (200°C), 11200 sec^-1	11.7 Pa·s	11.7 Pa·s	
Additional Information			
Properties are measured using injection molded plaques.			

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	356 to 428 °F	180 to 220 °C
Mold Temperature	86 to 140 °F	30 to 60 °C
Injection Rate	Fast	Fast

Notes

[1] Typical values are not to be construed as specifications.

[2] 16 days after Immersion Test. Test conditions: 1% Persil liquid Solution, phosphate-free, 60±5°C

[3] 7.9 in/min (200 mm/min)

[4] ±5 ShA.

[5] ±5 ShA. 16 days after Immersion Test. Test conditions: 1% Persil liquid Solution, phosphate-free, 60±5°C

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