

EMPILON® HT45

Styrene Ethylene Butylene Styrene Block Copolymer

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Message:

EMPILON® HT series compound has excellent Tensile Strength property, good resilience, low specific gravity, good electrical and mechanical properties. The EMPILON® HT series can be applied in many fields of use, such as: power tool grips, automotive parts, sporting goods etc. Hydrogenated Styrenic Block Copolymer is the main content of this HT series compound, its hardness range is from Shore A 28 to 95. They can be processed by ordinary plastic machinery for Injection, extrusion or calendaring etc.

EMPILON® HT-series compound are non-toxic and free of Pb, Cd, Hg, Cr6+, Sb, As, Ba, Se, halogen and DOP plasticizer, they also comply with the Restriction of the use of certain Hazardous Substance directive in electrical and electronic equipment (RoHS 2002/95/EC) and SONY SS-00259 4th that prohibit products that contain Pb, Cd, Hg, Cr6+, PBB and PBDE etc. They are 100% recyclable and comply with the Waste Electrical and Electronic Equipment directive (WEEE 2002/95/EC).

EMPILON® HTseries compound retain good mechanical properties after solvent resistance testing and won't hydrolyze in water. It is not necessary to dehumidity the material before use. HT series is of semi-opaque type in nature. For coloring, please select color master batch based on of PE or EVA material with the exception of PVC. Higher screw speed and backpressure are needed for better colorant dispersion.

General Information			
Features	Block Copolymer		
	Low (to no) lead content		
	Low density		
	Calcium content, low (to none)		
	High tensile strength		
	Recyclable materials		
	Good electrical performance		
	Hydrolysis resistance		
	Non-toxic		
	Halogen-free		
	No antimony		
	Elastic		
	Uses	Application in Automobile Field	
Sporting goods			
RoHS Compliance	RoHS compliance		
Appearance	Opacity		
Forms	Particle		
Processing Method	Extrusion		
	Calendering		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.890	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	21	g/10 min	ASTM D1238

Molding Shrinkage ¹			
Flow	0.80	%	
Transverse flow	1.0	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 10 sec)	44		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (300% Strain)	1.67	MPa	ASTM D412
Tensile Strength	7.06	MPa	ASTM D412
Tensile Elongation (Break)	670	%	ASTM D412
Compression Set (23°C, 70 hr)	23	%	ASTM D395
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (125°C, 168 hr)	2.0	%	ASTM D573
Change in Ultimate Elongation in Air (125°C, 168 hr)	-5.0	%	ASTM D573
Change in Durometer Hardness in Air (Shore A, 125°C, 168 hr)	-1.0		ASTM D573
Thermal	Nominal Value	Unit	
Brittleness Temperature	-50.0	°C	
Injection	Nominal Value	Unit	
Rear Temperature	175 - 185	°C	
Middle Temperature	185 - 195	°C	
Front Temperature	190 - 205	°C	
Nozzle Temperature	190 - 210	°C	
Processing (Melt) Temp	180 - 220	°C	
Mold Temperature	40.0 - 50.0	°C	
Injection Pressure	3.43 - 4.90	MPa	
Injection Rate	Fast		
Back Pressure	0.490 - 0.981	MPa	
Screw Speed	Medium		
Injection instructions			
Hold Time: 5 sec.Cycle Time: 15~20 sec.			
NOTE			
1.	Reference Only		

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