

## Quadrant EPP Borotron® HD050 5% Boron-filled Polyethylene (ASTM Product Data Sheet)

Category : Polymer , Thermoplastic , Polyethylene (PE) , HDPE

Material Notes:

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Quadrant-EPP-Borotron-HD050-5-Boron-filled-Polyethylene-ASTM-Product-Data-Sheet.php](http://www.lookpolymers.com/polymer_Quadrant-EPP-Borotron-HD050-5-Boron-filled-Polyethylene-ASTM-Product-Data-Sheet.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.01 g/cc	1.01 g/cc	ASTM D792

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	71	71	ASTM D2240
Tensile Strength	16.60 MPa	2407 psi	ASTM D638
Elongation at Break	4.0 %	4.0 %	ASTM D638
Tensile Modulus	0.7667 GPa	111.2 ksi	ASTM D638
Flexural Strength	29.1 MPa	4220 psi	ASTM D790
Flexural Modulus	0.8729 GPa	126.6 ksi	ASTM D790
Compressive Strength	6.60 MPa	957 psi	10% Def.; ASTM D695
	11.70 MPa	1697 psi	2% Def.; ASTM D695
	19.1 MPa	2770 psi	5% Def.; ASTM D695
	24.50 MPa	3553 psi	10% Def.; ASTM D695
Compressive Modulus	0.6718 GPa	97.44 ksi	ASTM D695
Izod Impact, Notched	0.481 J/cm	0.900 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	198 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature -40.0 - 150 $^\circ\text{C}$	110 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature -40.0 - 302 $^\circ\text{F}$	ASTM E831
Melting Point	128 $^\circ\text{C}$	262 $^\circ\text{F}$	ASTM D3418
Deflection Temperature at 1.8 MPa (264 psi)	46.7 $^\circ\text{C}$	116 $^\circ\text{F}$	ASTM D648

Electrical Properties	Metric	English	Comments
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Electrical Properties	Metric	English	Comments
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Compliance Properties	Metric	English	Comments
3A-Dairy	No	No	
Canada AG	No	No	
FDA	No	No	
NSF	No	No	
USDA	No	No	
USP Class VI	No	No	

Chemical Resistance Properties	Metric	English	Comments
Acids, Strong (pH 1-3)	Acceptable	Acceptable	
Acids, Weak	Acceptable	Acceptable	
Alcohols	Acceptable	Acceptable	
Alkalies, Strong (pH 11-14)	Acceptable	Acceptable	
Alkalies, Weak	Acceptable	Acceptable	
Chlorinated Solvents	Unacceptable	Unacceptable	
Conductive / Static Dissipative	Yes	Yes	
Continuous Sunlight	Limited	Limited	
Hot Water / Steam	Limited	Limited	
Hydrocarbons - Aliphatic	Unacceptable	Unacceptable	
Hydrocarbons - Aromatic	Unacceptable	Unacceptable	
Inorganic Salt Solutions	Acceptable	Acceptable	
Ketones, Esters	Unacceptable	Unacceptable	

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215, Fengxian District, Shanghai City, China