Borcoat™ HE3453

High Density Polyethylene

Borealis AG

Message:

Borcoat HE3453 is a bimodal, high density polyethylene compound and is supplied unpigmented.
Borcoat HE3453 is supplied with a specifically designed UV and thermal stabilisation package. The addition of a suitable colour masterbatch is required prior to extrusion.
Borcoat HE3453 is produced using advanced Borstar® technology that provides the material with good melt strength and extrudability, as well as superior mechanical properties at both low and high temperatures and very good ESCR.
Borcoat HE3453 is intended to fulfill following National and International standards, when appropriate industrial manufacturing standard procedures are applied and a continuous quality system is implemented and when used in combination with ME0420 or ME0433 and a compatible powder epoxy.
NFA 49710
DIN 30670S
CAN/CSA-Z245.21
Draft ISO 21809-1
Borcoat HE3453 is suitable for severe lay conditions at low or elevated ambient temperatures. High processing speeds and a reduction in layer thickness may be possible under certain conditions. Operating temperatures up to 90°C are possible when used in a correctly composed and applied system.

General Information			
Additive	UV stabilizer		
Features	High ESCR (Stress Cracking Resistance) Good UV resistance Recyclable materials Workability, good Good melt strength Thermal stability, good		
Uses	Pipeline coating Coating application		
Agency Ratings	CSA Z245.21		
Forms	Particle		
Processing Method	Extrusion coating		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density [1]	0.942	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	2.0	g/10 min	ISO 1133
Environmental Stress-Cracking Resistance			
10% Igepal, F20	> 5000	hr	IEC 60811-4-1/B
10% Igepal, F20	> 5000	hr	ASTM D1693A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	60		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	> 26.0	MPa	ASTM D638
Tensile Elongation (Break)	> 600	%	ASTM D638

Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -82.0	°C	ASTM D746
Vicat Softening Temperature	120	°C	ISO 306/A50
Melting Temperature (DSC)	128	°C	ISO 3146
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	10	ohms·cm	ASTM D257
Dielectric Strength	30	kV/mm	IEC 60243-1
Extrusion	**Nominal Value**	**Unit**	
Cylinder Zone 1 Temp.	190 - 210	°C	
Cylinder Zone 2 Temp.	190 - 210	°C	
Cylinder Zone 3 Temp.	190 - 210	°C	
Cylinder Zone 4 Temp.	190 - 210	°C	
Cylinder Zone 5 Temp.	190 - 210	°C	
Melt Temperature	220 - 240	°C	
Die Temperature	190 - 210	°C	
Extrusion instructions			
Maximum Recommended Melt Temperature: <260°CHead Temperature: 190 to 210°C			
NOTE			
1.	Base resin, ISO 1872-2		

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

WECHAT