

Addcomp PRIEX® 12031 Maleic Anhydride Grafted HDPE

Category : Polymer , Thermoplastic , Polyethylene (PE) , Anhydride-Modified Polyethylene , HDPE

Material Notes:

Fields of application: Functionalised polyethylene to be used as compatibiliser for polymer blends or coupling agent for wood flour, natural fibres, or mineral filled polyolefins. Also suitable to reduce pigment-related warpage effects in polyolefins. Examples: Cable compounds, organic monopigment preparations and wood flour filled polymer composites (WPC's). Mode of action and advantages: PRIEX® 12031 is a polyethylene, grafted with an extra high content of maleic anhydride. The grafted maleic anhydride introduces polarity to the polymer achieving compatibility between polyolefins and more polar materials or polymers like EVOH or Polyamide. Advantages: Excellent mechanical properties, good cost / performance; Ultra low smell, low VOC and emissions; Excellent coupling agent for natural fiber reinforced polymer composites or wood flour reinforced polymer composites; Free flowing pellets; and Safe and easy handling. Food contact: PRIEX® 12031 composition meets the requirements of Commission Directive 2002/72/EC and further amendments. Information provided by Addcomp Polymer Additive Solutions

Order this product through the following link:

http://www.lookpolymers.com/polymer_Addcomp-PRIEX-12031-Maleic-Anhydride-Grafted-HDPE.php

Physical Properties	Metric	English	Comments
Density	0.948 g/cc	0.0342 lb/in ³	ISO 1183-3
Oxidative Induction Time (OIT)	20 min @Temperature 210 °C	20 min @Temperature 410 °F	ISO 11357-6
Melt Flow	23 - 31 g/10 min @Load 5.00 kg, Temperature 190 °C	23 - 31 g/10 min @Load 11.0 lb, Temperature 374 °F	8/2 die; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	23.0 MPa	3340 psi	Yield, 50/50 mm/min; ISO 527-1
Elongation at Break	180 %	180 %	ISO 527-1
Elongation at Yield	8.0 %	8.0 %	ISO 527-1
Modulus of Elasticity	1.012 GPa	146.8 ksi	1 mm/min; ISO 527-1

Thermal Properties	Metric	English	Comments
Melting Point	134 °C	273 °F	ISO 11357-3
Crystallization Temperature	111 °C	232 °F	ISO 11357-3
Deflection Temperature at 0.46 MPa (66 psi)	58.0 °C	136 °F	ISO 75
Vicat Softening Point	67.0 °C	153 °F	ISO 306

Thermal Properties	@Load 5.10 kg Metric	@Load 11.2 lb English	Comments
	123 °C	253 °F	ISO 306
	@Load 1.02 kg	@Load 2.25 lb	

Processing Properties	Metric	English	Comments
Processing Temperature	<= 260 °C	<= 500 °F	

Descriptive Properties	Value	Comments
Appearance	White or slightly yellow granules	
Free Maleic Anhydride	<50 mg/kg	Solvay method
Grafted Maleic Anhydride	0.36-0.44%	Solvay method

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