ALCUDIA® HDPE TR-210

High Density Polyethylene

REPSOL

Message:

ALCUDIA® TR210 is a high density polyethylene developed to provide excellent mechanical properties, toughness, good environmental stress cracking resistance (ESCR) and stability against oxidative degradation. This product provides a superior performance at high-speed extrusion together with a smooth surface finish of the cable. It is stabilized to be protected from thermal and shear degradation and contains a metal deactivator to ensure long-term ageing properties.
TYPICAL APPLICATIONS
Solid insulation of telephone single. Skin layer in foam-skin construction. Jelly-filled cable. ALCUDIA® TR210 can be extruded at a high melt temperature between 230°C - 260°C without risk of thermal or shear degradation. The optimum conditions depend on the application and the extrusion equipment used. When processed using proper extrusion conditions, ALCUDIA® TR210 is expected to meet the requirements of the following product and cable specifications:
ISO 1872 PE KHN 45D006/012
ASTM D 1248 III, A4, Grade E9
NF C 32-060 ISM3
BS 6234, Type H03
VDE 0207 Teil2 2YI1
EN 50290-2-23
EN 50288

General Information	
Additive	Metal deactivator
Features	High ESCR (Stress Cracking Resistance) Good toughness
Uses	Telephone insulator Wire and cable applications
Agency Ratings	ASTM D 1248, III, Class A, Cat. 4, Grade E9 BS 6234 Type H03 EN 50288 EN 50290-2-23 ISO 1872 PE KHN 45D006 ISO 1872 PE KHN 45D012 NF C 32-060 ISM3 VDE 0207 Teil2 2YI1
Appearance	Natural color
Forms	Particle
Processing Method	Extrusion

Physical	Nominal Value	Unit	Test Method
Density (23°C)	0.943	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.80	g/10 min	ISO 1133

Environmental Stress-Cracking Resistance (F50)	> 1000	hr	ASTM D1693
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (Break)	20.0	MPa	ISO 527-2
Tensile Strain (Break)	700	%	ISO 527-2
Aging	**Nominal Value**	**Unit**	**Test Method**
Retention of Mechanical Properties [1] (100°C)	> 75	%	ISO 527-3
Oxidation Induction Time (200°C)	> 30	min	EN 728
Long Term Stability	0 Failures		IEC 60811-4-2
Weight Gain - by gel absorption [2] (70°C)		%	IEC 60811-4-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature [3]	< -76.0	°C	ASTM D746
Vicat Softening Temperature	126	°C	ISO 306/A
Electrical	**Nominal Value**		**Test Method**
Dielectric Constant (1 MHz)	2.30		ASTM D150
Dissipation Factor (1 MHz)	4.0E-4		ASTM D150
Extrusion	**Nominal Value**	**Unit**	
Melt Temperature	230 - 260	°C	
NOTE			
1.	10 days		
2.	10 days		
3.	0 Failures		

Recommended distributors for this material

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