ALCUDIA® HDPE T-100-N

High Density Polyethylene

REPSOL

Message:

ALCUDIA® T-100-N black compound is a high density polyethylene with a broad bimodal molecular weight distribution, especially apt for the extrusion of pipe for potable water and natural gas, to comply with the requirements of prEN 12201 and prEN 1555 European specification standards.
The combination of the antioxidant system and minimum of 2.0% well dispersed carbon black used in T-100-N provides the following features:
excellent protection against thermal oxidation during processing.
long term stability.
excellent cracking resistance.
Based on the UNE EN 12201 and UNE EN 1555 classification the ALCUDIA® T-100-N compound is classified as PE100.
Because other good mechanical properties and their characteristics, the polyethylene black compound ALCUDIA® T-100-N, is designed to produce large diameter pipe for potable water and fittings and valves for the transport of water.

General Information			
Additive	Carbon Black (2%)		
Features	Bimodal Molecular Weight Distribution Food Contact Acceptable Good Processing Stability High ESCR (Stress Crack Resist.) Med.-Wide Molecular Weight Distrib.		
Uses	Piping		
Agency Ratings	prEN 12201 prEN 1555		
Appearance	Black		
Processing Method	Pipe Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density (23°C)	0.960	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	0.10	g/10 min	
190°C/5.0 kg	0.40	g/10 min	
Environmental Stress-Cracking Resistance (10% Antarox CO-630, F50)	> 10000	hr	ASTM D1693
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness (Shore D, 23°C)	59		ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1100	MPa	ISO 527-2
Tensile Stress (Yield)	25.0	MPa	ISO 527-2
Tensile Strain (Break)	> 600	%	ISO 527-2
Internal Pressure Resistance			EN 1555/12201
10 MPa : 20°C	> 4.2	day	

4.0 MPa : 80°C	> 41.7	day	
4.6 MPa : 80°C	> 6.9	day	
Resistance to Rapid Crack Propagation, Pc (0°C) [1]	> 10.0	bar	ISO 13477
Resistance to Slow Crack Growth (80°C) [2]	500	hr	ISO 13479
Oxidation Induction Time (210°C)	> 20	min	EN 728
Long-Term Hydrostatic Strength - 50 years (20°C) [3]	10.0	MPa	ISO TR 9080
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -70.0	°C	ASTM D746
Vicat Softening Temperature	119	°C	ISO 306/A50
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	175 to 195	°C	
Cylinder Zone 2 Temp.	180 to 200	°C	
Cylinder Zone 3 Temp.	185 to 205	°C	
Cylinder Zone 4 Temp.	190 to 210	°C	
Cylinder Zone 5 Temp.	195 to 215	°C	
Melt Temperature	200 to 220	°C	
NOTE			
1.	110x15 mm pipe, S4 Test		
2.	9.2 bar		
3.	Regression Curve		

Recommended distributors for this material

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