

HDPE HE3490-LS Technical Datasheet

1) Product Description:

HE3490-LS is a black, bimodal, high density polyethylene classified as a MRS 10.0 material (PE100) produced by the advanced Borstar technology. Well dispersed carbon black gives outstanding UV resistance. Long term stability is ensured by an optimized stabilization system.

2) Applications:

HE3490-LS is recommended for pressure pipe systems in the applications field of drinking water and natural gas, pressure sewerage, relining, sea outfall and industrial. It is especially designed for the production of larger diameter, thick wall pipe, but can be processed for the whole range of diameters. It also shows excellent resistance to rapid crack propagation and slow crack growth.

3) Typical data:

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE*
Density (Base resin)	ISO 1183/ISO 1872-2B	kg/m ³	949
Density (Compound)	ISO 1183/ ISO 1872-2B	kg/m ³	959
Melt Flow Rate (190°C/2.16 kg)	ISO 1133	g/10 min	<0.1
Melt Flow Rate (190°C/5.0 kg)	ISO 1133	g/10 min	0.25
Tensile Stress at Yield (50 mm/min)	ISO 524-2	MPa	25
Tensile Strain at Break	ISO 524-2	%	>600
Tensile Modulus (1 mm/min)	ISO 527-2	MPa	1100
Charpy Impact, notched (0°C)	ISO 179/1eA	kJ/m ²	16
Hardness, Shore D	ISO 868	-	60
Carbon Black Dispersion	ISO 18553	-	<3
Carbon Black content	ASTM D 1603/ISO 6964	%	>2
Brittleness Temperature	ASTM D 746	°C	<-70
Resistance to Rapid Crack (Pc at 0°C, test pipe)	ISO 13477	bar	>10
Propagation, S4 test 250mm SDR11)	-		
Resistance to Slow Crack (9.2bar, 80oC)	ISO 13479	h	>1000
Growth	-		
Thermal Stability (210°C)	EN 728	min	>20
ESCR (10% lgepal), F50	ASTM D 1693-A	h	>10000

Typical values not to be construed as specifications.