ADVANCENE™ bEE-4906-AAH

High Density (HMW) Polyethylene

ETHYDCO

Message:

ADVANCENE™ bEE-4906-AAH is a thermally stabilized bimodal high molecular weight high density polethylene - hexene copolymer, produced using advanced gas phase PE process in a single reactor. It is intended for use in PE-100 pipe applications where the highest standards of long term hydrostatic strength and resistance to slow crack growth are esired. These high performance pipes can be used at higher pipeline operating pressures and have a potential to down-gauge. ADVANCENE™ bEE-4906-AAH has good processability with a high specific output (kg/hr/rpm), exceptional melt strength with very Low Sag, and good fusion compatibility. It is very suitable for large diameter and thick wall pipe but also for small diameter pipes.
Main Characteristics:
Natural gas distribution pipes (ISO 4437).
Large diameter industrial piping.
Mining. sewage. and municipal water service lines (ISO 12201, ISO 4427).
Complies with:
ISO 12162: PE-1DD.
Russia: Gost 18599 and Gost1 6388.
Australia, New Zealand: All NZS 4130.

General Information			
Additive	heat stabilizer		
Features	High Melt Strength High molecular weight High density Copolymer hexene comonomer Recyclable materials Workability, good Thermal Stability Bimodal molecular weight distribution		
Uses	Piping system		
Agency Ratings	ISO 12162 PE 100		
Processing Method	Pipeline extrusion molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	0.949	g/cm^3	ASTM D1505
Melt Mass-Flow Rate (MFR)			ASTM D1238, ISO 1133
190°C/21.6 kg	6.0	g/10 min	ASTM D1238, ISO 1133
190°C/5.0 kg	0.20	g/10 min	ASTM D1238, ISO 1133
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638, ISO 527-2
Yield	24.0	MPa	ASTM D638, ISO 527-2
Fracture	26.0	MPa	ASTM D638, ISO 527-2
Tensile Elongation (Break)	500	%	ASTM D638, ISO 527-2
Flexural Modulus - 2% Secant	1000	MPa	ASTM D790B, ISO 178

Slow Crack Growth Resistance [1]	> 1000	hr	ISO 13479
Resistance to rapid crack propagation, Pc [2]	> 10.0	bar	
Creep fracture strength [3]	> 200	hr	
Designation	PE-100		ISO 12162
Minimum Required Strength	> 10.0	MPa	ISO 9080
PENT - (slow crack growth; 80°C, 3.0 MPa)	> 1000	hr	ASTM F1473

Extrusion	Nominal Value	Unit
Suggested Max Moisture	0.030	%
Cylinder Zone 1 Temp.	190 - 210	°C
Cylinder Zone 3 Temp.	190 - 210	°C
Cylinder Zone 5 Temp.	190 - 210	°C
Melt Temperature	200 - 220	°C
Die Temperature	200 - 215	°C

NOTE	
1.	Tested on 110mm SDR11 pipe
2.	Tested on 110mm SDR11 pipe
3.	Pressure test at 20°C and 12.4 MPa

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection.All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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