

ADVANCENE™ bEE-4906-AAH

Bimodal High Molecular weight High Density Polyethylene Resin

Overview:

ADVANCENE™ bEE-4906-AAH is a thermally stabilized bimodal high molecular weight high density polyethylene - hexene copolymer, produced using advanced gas phase PE process in a single reactor.

Applications:

- Conduit
- Profile extrusion applications.
- Large industrial containers & tanks (220-2000 liters).

Complies with:

- Europe EU 10/2011 followed by its amended.
- U.S. FDA 21 CFR 177.1520(c)3.1a

Additives:

- Thermal Stabilizer

Physical Properties	Nominal Value (SI)	Test Method
Density	0.949 g/cm ³	ASTM D1505
Melt Index (190°C/5 kg)	0.2 g/10min	ASTM D1238, ISO 1133
Melt Index (190°C/21.6 kg)	6.0 g/10min	
Environmental Stress-Cracking Resistance (50°C, 100% Igepal, F50)	>1500 Hours	ASTM D1693 ¹
Mechanical Properties	Nominal Value (SI)	Test Method
Tensile Strength at Yield	24 MPa	ASTM D638 ¹ , ISO 527
Tensile Strength at Break	26 MPa	
Tensile Elongation at Break	500 %	
Flexural Modulus – 2% Secant	1000 MPa	ASTM D790B ¹ , ISO 178
Izod Impact strength (notched)	12.61 KJ/m ²	ASTM D256-04
Durometer Hardness (Shore D)	60	ASTM D2240 ¹
Thermal Properties	Nominal Value (SI)	Test Method
OIT (at 210°C)	> 20 min	ISO 11357-6
Melting Temperature (DSC)	135 °C	ASTM D3418, ISO 3146
Peak Crystallization Temperature (DSC)	113.5 °C	
Vicat Softening Temperature	125 °C	ASTM D1525, ISO 306

Processing Conditions

Screw speed = 15 – 60 RPM.

Temperature setting from 190 °C- 220 °C.

Notes:

1 Molded and tested in accordance with ASTM D4976

Availability:

This product is supplied in 25 kg bags in secured pallets of 60 bags (1.500 MT net). It is also supplied in jumbo bags of 1000 kg capacity.

Storage:

The product should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product. More information on storage can be found on the Safety Information Sheet for this product.

Safety:

The product is not classified as a hazardous mixture. Dust and fines from the product carry a risk of dust explosion. All equipment should be properly earthed. Inhalation of dust should be avoided as it may cause irritation of the respiratory system. Small amounts of fumes are generated during processing of the product. Proper ventilation is therefore required. A Safety Information Sheet is available on request. Please contact your ETHYDCO representative for more details on various aspects of safety, recovery and disposal of the product.

Recycling:

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

Related documents:

Most datasheets and statements are available on ETHYDCO website www.ethydc0-eg.com. If more information is required, please contact an ETHYDCO representative for information.

Disclaimer:

The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information.

ETHYDCO makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.

It is the customer's responsibility to inspect and test our products in order to satisfy them with the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

No liability can be accepted in respect of the use of ETHYDCO products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third party materials.

ADVANCENE™ is a trademark of ETHYDCO

ADVANCENE™ bEE-4906-AAH

Bimodal High Molecular Weight High Density Polyethylene Resin

Overview:

ADVANCENE™ bEE-4906-AAH/Extrusion is a thermally stabilized bimodal high molecular weight high density polyethylene - hexene copolymer, produced using advanced gas phase PE process in a single reactor. Its high molecular weight, bimodal molecular weight distribution and optimum density results in films with high strength, high rigidity and excellent processability. ADVANCENE™ bEE-4906-AAH/ Extrusion is compatible with color concentrates, thus permitting the production of a variety of colored films that serve as protective and attractive decorative wraps. ADVANCENE™ bEE-4906-AAH should be blended with HDPE or LLDPE resins to obtain films with high strength and excellent processability

Applications:

- High strength grocery sacks
- Shopping bags
- Blown Film.
- Heavy Duty Bags.
- Refuse Bags.
- Trash Bags

Additives:

- Thermal Stabilizer

Complies with:

- Europe EU 10/2011 followed by its amended.
- U.S. FDA 21 CFR 177.1520(c)3.1a

Physical Properties	Nominal Value (SI)	Test Method
Density	0.949 g/cm ³	ASTM D792
Melt Index (190°C/21.6 kg)	6.0 g/10min	ASTM D1238, ISO 1133
Melt Index (190°C/5.0 kg)	0.2 g/10min	ASTM D1238, ISO 1133
Film Mechanical Properties	Nominal Value (SI)	Test Method
Tensile Strength at Yield MD	62.0 MPa	ASTM D882
Tensile Strength at Yield TD	19.0 MPa	
Tensile Strength at Break MD	63.0 MPa	
Tensile Strength at Break TD	40.0 MPa	
Elongation at Break MD	130 %	
Elongation at Break TD	620 %	
Dart Drop Impact	32.0 g	ASTM D1709A, ISO 7765
Elmendorf Tear Strength MD	5.0 g	ASTM 1922 ¹ , ISO 6383-2
Elmendorf Tear Strength TD	32.0 g	
Thermal Properties	Nominal Value (SI)	Test Method
Vicat Softening Temperature	125 °C	ASTM D1525, ISO 306
Melting Temperature (DSC)	134 °C	ASTM D3418, ISO 3146

Processing conditions

Screw speed = 80 RPM. • Temperature setting from 200°C - 215°C. • BUR = 4:1.

Notes:

1. Method B

Availability:

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