ADVANCENE™ EE-4811-AAH

ETHYDCO - High Density (HMW) Polyethylene

General Information

Product Description

ADVANCENE™ EE-4811-AAH High Density Polyethylene Resin is a high molecular weight, high-density polyethylene copolymer that has been designed specically for tubular film extrusion. Its broad molecular weight distribution and density successfully combine excellent performance at high extrusion rates with high film strength and rigidity. Tubular films of ADVANCENE™ EE-4811-AAH Resin are recommended for high strength grocery sacks. shopping bags and notion and millinery bags. The excellent drawdown characteristic of this product permits production of high-quality thin films for multiwall sack liners and replacements for thin paper products. The combination of strength and drawdown makes this resin ideal for downgauging in many applications. Films are readily treated and printed to give high-quality graphics. ADVANCENE™ EE-4011-AAH Resin is compatible with color concentrates, thus permitting the production of a variety of colored films that serve as protective and attractive decorative wraps.

Main Characteristics:

- Hexene High Density Resin.
- High film strength.
- Excellent processability and drawdown.

General

Features	• Copolymer • Excellent Processability • Good Colorability • Good Drawdown	• Good Printability • Hexene Copolymer • High Density • High Molecular Weight	• High Rigidity • High Strength • Recyclable Material • Wide Molecular Weight Distribution
Uses	• Bags	• Film	• Liners
Processing Method	• Film Extrusion		

Properties [1]

Physical	Typical Value (English)		Typical Value (SI)		Test Method
Density / Specific Gravity	0.950		0.948	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	11	g/10 min	11	g/10 min	ASTM D1238 ISO 1133
Mechanical	**Typical Value (English)**		**Typical Value (SI)**		**Test Method**
Flexural Modulus - 1% Secant	118000	psi	814	MPa	ASTM D790 ISO 178
Films	**Typical Value (English)**		**Typical Value (SI)**		**Test Method**
Film Thickness - Tested	0.50	mil	13	µm	
Film Puncture Energy [2]	10.6	in·lb	1.20	J	
Tensile Strength					ASTM D882
MD : Yield, 0.50 mil (13 µm)	4000	psi	27.6	MPa	
TD : Yield, 0.50 mil (13 µm)	3500	psi	24.1	MPa	
MD : Break, 0.50 mil (13 µm)	8010	psi	55.2	MPa	
TD : Break, 0.50 mil (13 µm)	7800	psi	53.8	MPa	

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Tensile Elongation					ASTM D882
MD : Break, 0.50 mil (13 µm)	270	%	270	%	
TD : Break, 0.50 mil (13 µm)	350	%	350	%	
Dart Drop Impact (0.50 mil (13 µm))	150	g	150	g	ASTM D1709A ISO 7765-1
Elmendorf Tear Strength					ASTM D1922 ISO 6383-2
MD : 0.50 mil (13 µm) [3]	70	g	70	g	
TD : 0.50 mil (13 µm)	150	g	150	g	

Thermal	Typical Value (English)		Typical Value (SI)		Test Method
Vicat Softening Temperature	255	°F	124	°C	ASTM D1525 ISO 306
Peak Melting Temperature	270	°F	132	°C	ASTM D3418 ISO 3146

Processing Information

Extrusion	Typical Value (English)		Typical Value (SI)	
Melt Temperature	421	°F	216	°C
Screw L/D Ratio	30.0:1.0		30.0:1.0	