ADVANCENE™ bEE-4909-AAH

ETHYDCO - High Density (HMW) Polyethylene

General Information

Product Description

ADVANCENE™ bEE-4909-AAH is a bimodal high molecular weight high density ethylene-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. Tubular films of ADVANCENE™ bEE-4909-AAH resin are recommended for high strength grocery sacks, shopping bags and other thin film applications. The combination of strength, toughness and drawdown makes this resin ideal for downgauging in many applications. Films are readily treated and printed to give high-quality graphics. ADVANCENE™ bEE-4909-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 Charactenstlcs:

- Hexene High Density Resin.
- Bimodal Molecular weight distribution.
- High film strength.
- Excellent processability and drawdown.

General

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

Properties [1]

Physical	Typical Value (English)		Typical Value (SI)		Test Method
Density / Specific Gravity	0.951		0.949	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	9.0	g/10 min	9.0	g/10 min	ASTM D1238 ISO 1133
Films	**Typical Value (English)**		**Typical Value (SI)**		**Test Method**
Film Thickness - Tested	0.50	mil	13	µm	
Film Puncture Energy	8.32	in·lb	0.940	J	Internal Method
Tensile Strength					ASTM D882
MD : Yield, 0.50 mil (13 µm)	4640	psi	32.0	MPa	
TD : Yield, 0.50 mil (13 µm)	4350	psi	30.0	MPa	
MD : Break, 0.50 mil (13 µm)	10300	psi	71.0	MPa	
TD : Break, 0.50 mil (13 µm)	9860	psi	68.0	MPa	
Tensile Elongation					ASTM D882
MD : Break, 0.50 mil (13 µm)	350	%	350	%	
TD : Break, 0.50 mil (13 µm)	350	%	350	%	
Dart Drop Impact (0.50 mil (13 µm))	260	g	260	g	ASTM D1709A ISO 7765-1

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Films	Typical Value (English)		Typical Value (SI)		Test Method
Elmendorf Tear Strength					ASTM D1922 ISO 6383-2
MD : 0.50 mil (13 µm) [2]	11	g	11	g	
TD : 0.50 mil (13 µm)	24	g	24	g	
Thermal	**Typical Value (English)**		**Typical Value (SI)**		**Test Method**
Peak Melting Temperature	266	°F	130	°C	ASTM D3418 ISO 3146

Processing Information

Extrusion	Typical Value (English)		Typical Value (SI)	
Melt Temperature	392 to 419	°F	200 to 215	°C