



ADVANCENE™ EM-4925-AAH

ETHYDCO - High Density Polyethylene

General Information

Product Description

ADVANCENE™ EM-4925-AAH HDPE Resin is specifically designed for use in either intermittent or continuous blow molding equipment to produce containers up to 30 liters in size - applications that require the combination of outstanding environmental stress crack resistance (ESCR) and high impact strength.

ADVANCENE™ EM-4925-AAH HDPE Resin is also considered a multipurpose blow molding resin designed for the high speed production of blow molded containers used for packaging household industrial chemicals (e.g. detergents, bleach, fabric softeners), toiletries and cosmetics (e.g., shampoos, creams, lotions, etc.) health and medical aids. In addition, it can be blow molded into other thin-walled parts and houseware items, and can also be extruded into profiles or sheets.

Main Characteristics

- Outstanding environmental stress crack resistance.
- High impact strength.
- Good extrusion characteristics.

General

Features	• High Density	• High ESCR (Stress Crack Resist.)	• High Impact Resistance
Uses	• Containers • Cosmetic Packaging • Household Goods	• Medical Packaging • Packaging • Profiles	• Sheet • Thin-walled Parts
Processing Method	• Blow Molding	• Profile Extrusion	• Sheet Extrusion

Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.951	0.949 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238 ISO 1133
190°C/2.16 kg	0.25 g/10 min	0.25 g/10 min	
190°C/21.6 kg	25 g/10 min	25 g/10 min	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F (50°C), 100% Igepal, F50	180 hr	180 hr	
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength			ASTM D638 ISO 527-2
Yield	3390 psi	23.4 MPa	
Break	4500 psi	31.0 MPa	
Tensile Elongation			ASTM D638 ISO 527-2
Yield	8.0 %	8.0 %	
Break	900 %	900 %	
Flexural Modulus - 2% Secant	132000 psi	910 MPa	ASTM D790B ISO 178

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Impact	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Impact Strength			
-- ²	99.9 ft·lb/in ²	210 kJ/m ²	ASTM D1822
--	99.9 ft·lb/in ²	210 kJ/m ²	ISO 8256
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D)	57	57	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	144 °F	62.0 °C	ISO 75-2/B
Brittleness Temperature	< -105 °F	< -76.0 °C	ASTM D746 ISO 974
Vicat Softening Temperature	261 °F	127 °C	ASTM D1525 ISO 306
Peak Melting Temperature	266 °F	130 °C	ASTM D3418 ISO 3146
Peak Crystallization Temperature (DSC)	244 °F	118 °C	ASTM D3418 ISO 3146