ExxonMobil Chemical

PAXON™

High Density Polyethylene

BA50-100 Sheet Extrusion and Blow Molding Resin

Description

BA50-100 is a high molecular weight, high density polyethylene copolymer. This resin has superior stress crack resistance, high impact strength and good rigidity.

Applications

- Heavy gauge sheet, typically 0.050 in to 0.500 in
- Automotive dunnage
- Pallets
- Recreational thermoformed parts
- Automotive fuel tanks (monolayer)

Additive Package	Stabilizer
	Synergistic Phenolic & Phosphite antioxidant mixture
	Stearate, suitable for demanding process conditions

Resin Properties	Test Based on	Units SI (English)	Typical Values[1]
Melt Index, 190/2.16	ASTM D-1238	g/10 min	<0.1
Flow Rate, 190/21.6 (HLMI)	ASTM D-1238	g/10 min	10
Density	ASTM D-4883	g/cm^3 (lbs/ft^3)	0.949 (59.3)
Molded Properties[2]			
Mechanical (23°C, 50% relative humidity, unless otherwise noted)			
Tensile Strength at Yield	ASTM D-638	MPa (psi)	26 (3,800)
Elongation at Break	ASTM D-638	%	1,000
Flexural Modulus[3]	ASTM D-790	MPa (psi)	1,240 (180,000)
Tensile Impact	ASTM D-1822	joules/cm^2 (ft lbs/in^2)	25 (120)
Tensile Impact @ -40°C	ASTM D-1822	joules/cm^2 (ft lbs/in^2)	21 (100)
Impact Brittleness Temperature	ASTM D-746	°C (°F)	<-76 (<-105)
Environmental Stress Crack Resistance[4]	ASTM D-1693	hrs	>800
Thermal			
Vicat Softening Temperature	ASTM D-1525	°C (°F)	120 (250)
Heat Deflection Temperature, 66 psi	ASTM D-648	°C (°F)	70 (160)
Coefficient of Linear Thermal Expansion	ASTM D-696	cm/cm/°C (in/in/°F)	1.2x10^{-4} (7x10^{-5})
Processing			
Typical Melt Temperature		°C (°F)	204 (400)

1. Values are typical and should not be interpreted as specifications. Values may change with future development.
2. All molded properties were measured on compression molded plaques.
3. Method 1, Procedure A (1"x3"x0.125"), Tangent calculation.
4. Condition B, 100% Igepal.
5. BA50-100 has NSF and UL recognition. Contact your ExxonMobil Chemical representative for details.

All high density polyethylene polymer grades can - in principle - be used in food contact applications in the USA (FDA). Migration or use limitations may apply. Please contact your ExxonMobil Chemical representative for more detailed information and/or actual compliance certification documents for the specific grade of interest.

FDA Status:

This resin meets all the requirements of the FDA for olefin polymers to be used as articles or components of articles for contact with food as set forth in 21 CFR 177.1520 (c) 3.1 and 3.2.