



B4660 Series

High Density Polyethylene for Blow molding

Product Description

B4660 Series grades are medium molecular weight High Density Polyethylene homopolymer for blow molding applications. They are primarily designed for imparting high rigidity, toughness and good processability. These unique properties offer the possibility to reduce weight at very good top load strength.

B4660 series includes following grades:

B4660: Suitable for Dairy products and Juice Packaging

B4660AB: Suitable for Water packaging

Typical Applications

B4660 Series resins are primarily intended for blow molding bottles for the food and beverage industry. The grade B4660AB is specifically recommended for water packaging applications. The grades are intended to meet customer specifications in respect of purity, healthiness and organoleptics. They can also be used in other hollow thin-walled parts and profile extrusions. They are not recommended for packaging environmentally active materials such as soaps, detergents, shampoos, etc.

Typical data

Properties	Unit	Value ⁽¹⁾	ASTM Method
Resin Properties			
Melt Flow Rate			
@ 190°C & 2.16 kg load	g/10 min.	0.7	D 1238
@ 190°C & 5 kg load		2.8	
@ 190°C & 21.6 kg load		46	
Density @ 23°C	kg/m ³	961	D 1505
Mechanical Properties⁽²⁾			
1% Secant Modulus	MPa	>1000	D 638
Tensile Strength @ Yield	MPa	30	D 638
Tensile Strength @ Break	MPa	18	D 638
Tensile Elongation @ Break	%	500	D 638
Flexural Strength	MPa	28	D 790
Flexural Modulus	MPa	1100	D 790
Izod Impact	J/m	150	D 256
Hardness (Shore D)	-	66	D 2240
ESCR (100% Igepal), F ₅₀	Hrs	24	D 1693B
ESCR (10% Igepal), F ₅₀	Hrs	16	
Thermal Properties			
Vicat Softening Point	°C	127	D 1525
Brittleness Temperature	°C	<-75	D 746

(1) Typical values; not to be construed as specification limits.

(2) Based on Compression molded sheet

Processing Conditions

Typical processing conditions for B4660 Series are:

Barrel temperature: 170 - 200°C

Melt temperature: 190 - 210°C

Food Regulation

B4660 Series grades are suitable for Food contact application. Detailed information is provided in relevant Material Safety Datasheet and for additional specific information please contact SABIC local representative for certificate.

Storage and Handling

Polyethylene material should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably don't exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.

Saudi Basic Industries Corporation, P.O.Box 5101, Riyadh 11422, Kingdom of Saudi Arabia

Tel: 966 1 2258000

Fax: 966 1 2259000

Technical Marketing

Tel: 966 1 2659166

Fax: 966 1 2653544

Toll-free 800 1245577

PE Sales:

Fax: 966 1 2258760

Website: www.sabic.com

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