

SABIC® HDPE B5429

HIGH DENSITY POLYETHYLENE

DESCRIPTION

B5429 grade is medium molecular weight High Density Polyethylene copolymer. They are primarily intended for blow molding articles of small sizes. B5429 series grades offer excellent combination of toughness, stress cracking resistance, load bearing strength with easy processability. The grade available with antistatic additive is B5429A.

TYPICAL APPLICATIONS

B5429 is classified as a multipurpose blow molding grade. It may be blow molded into containers for household and industrial chemicals (eg. Detergents, bleach, fabric softeners, solvents, paints etc), automotive supplies, foodstuffs, toiletries and cosmetics. They can also be used in other hollow thin walled parts and profile extrusions.

TYPICAL PROPERTY VALUES

Revision 20260206

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES ⁽¹⁾			
Melt Flow Rate (MFR)			
at 190°C and 2.16 kg	0.3	g/10 min	ASTM D1238
at 190°C and 21.6 kg	29	g/10 min	ASTM D1238
Density at 23°C	954	kg/m³	ASTM D1505
MECHANICAL PROPERTIES ⁽²⁾			
1% Secant Modulus	1050	MPa	ASTM D638
Tensile Strength at Yield	28	MPa	ASTM D638
Tensile Strength at Break	19	MPa	ASTM D638
Tensile Elongation at Break	>500	%	ASTM D638
Flexural Strength	25	MPa	ASTM D790
Flexural Modulus	1000	MPa	ISO 178/1A
Izod Impact Strength	180	J/m	ASTM D256
Hardness (Shore D)	65	-	ASTM D2240
ESCR (100% Igepal), F50	100	Hrs	ASTM D1693B
ESCR (10% Igepal), F50	60	Hrs	ASTM D1693B
THERMAL PROPERTIES			
Vicat Softening Point	124	°C	ASTM D1525
Brittleness Temperature	<-75	°C	ASTM D746

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

(2) Based on compression molded sheet.

PROCESSING CONDITIONS

Typical processing conditions for B5429 are:

Barrel temperature: 170 - 200°C

Melt temperature: 190 - 220°C

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CHEMISTRY THAT MATTERS™



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.

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