

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 20170531

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate			
at 190°C and 2.16 kg ⁽¹⁾	0.3	g/10 min	ASTM D1238
at 190°C and 21.6 kg ⁽¹⁾	29	g/10 min	ASTM D1238
Density at 23°C ⁽²⁾	954	kg/m ³	ASTM D1505
MECHANICAL PROPERTIES ^{(1) (2)}			
1% Secant Modulus ⁽²⁾	1050	MPa	ASTM D638
Tensile Strength at Yield ⁽²⁾	28	MPa	ASTM D638
Tensile Strength at Break ⁽²⁾	19	MPa	ASTM D638
Tensile Elongation at Break ⁽²⁾	> 500	%	ASTM D638
Flexural Strength ⁽²⁾	25	MPa	ASTM D790
Flexural Modulus ⁽²⁾	1000	MPa	ASTM D790
Izod Impact Strength ⁽²⁾	180	J/m	ASTM D256
Hardness (Shore D) ⁽²⁾	65	-	ASTM D2240
ESCR (100% Igepal), F50 ⁽²⁾	100	hrs	ASTM D1693B
ESCR (10% Igepal), F50 ⁽²⁾	60	hrs	ASTM D1693B
THERMAL PROPERTIES			
Vicat Softening Point ⁽²⁾	124	°C	ASTM D1525
Brittleness Temperature ⁽²⁾	< -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

HEALTH, SAFETY AND FOOD CONTACT REGULATIONS

Detailed information is provided in the relevant Material Safety Datasheet and or Standard Food Declaration, Additional specific information can be requested via your local Sales Office.

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.

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

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