

SABIC® HDPE B5428

HIGH DENSITY POLYETHYLENE

DESCRIPTION

HDPE B5428 is a medium molecular weight high density polyethylene resin used for blow molding. Blow molded parts made from this resin exhibit high stiffness, good impact strength and good Environmental Stress-Cracking Resistance (ESCR).

TYPICAL APPLICATIONS

Small and medium size containers for household and industrial chemicals

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	28	g/10 min	ASTM D1238
Density at 23°C	954	kg/m³	ASTM D1505
MECHANICAL PROPERTIES ⁽²⁾			
1% Secant Modulus	1200	MPa	ASTM D638
Tensile Strength at Yield	27	MPa	ASTM D638
Tensile Elongation at Break	>700	%	ASTM D638
Flexural Modulus	1100	MPa	ISO 178/1A
Izod Impact Strength	130	J/m	ASTM D256
Hardness (Shore D)	68	-	ASTM D2240
ESCR (100% Igepal), F50	>100	Hrs	ASTM D1693B
THERMAL PROPERTIES			
Vicat Softening Point	127	°C	ASTM D1525

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

(2) Based on compression molded sheet.

PROCESSING CONDITIONS

Processing conditions: Typical processing conditions: 160 – 200 °C

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

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY. NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2026 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS™

