

# 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 |
|---|----------------|-------------------|--------------|
| <b>POLYMER PROPERTIES <sup>(1)</sup></b>    |                |                   |              |
| <b>Melt Flow Rate (MFR)</b>                 |                |                   |              |
| 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   |
| <b>Density at 23°C</b>                      | 954            | kg/m <sup>3</sup> | ASTM D1505   |
| <b>MECHANICAL PROPERTIES <sup>(2)</sup></b> |                |                   |              |
| <b>1% Secant Modulus</b>                    | 1050           | MPa               | ASTM D638    |
| <b>Tensile Strength at Yield</b>            | 28             | MPa               | ASTM D638    |
| <b>Tensile Strength at Break</b>            | 19             | MPa               | ASTM D638    |
| <b>Tensile Elongation at Break</b>          | >500           | %                 | ASTM D638    |
| <b>Flexural Strength</b>                    | 25             | MPa               | ASTM D790    |
| <b>Flexural Modulus</b>                     | 1000           | MPa               | ISO 178/1A   |
| <b>Izod Impact Strength</b>                 | 180            | J/m               | ASTM D256    |
| <b>Hardness (Shore D)</b>                   | 65             | -                 | ASTM D2240   |
| <b>ESCR (100% Igepal), F50</b>              | 100            | Hrs               | ASTM D1693B  |
| <b>ESCR (10% Igepal), F50</b>               | 60             | Hrs               | ASTM D1693B  |
| <b>THERMAL PROPERTIES</b>                   |                |                   |              |
| <b>Vicat Softening Point</b>                | 124            | °C                | ASTM D1525   |
| <b>Brittleness Temperature</b>              | <-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



## 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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