

## Aramco Trading



# High Density Polyethylene Aramco HDPE B5403

## Product Description

Aramco HDPE B5403 is a medium molecular weight bimodal high density polyethylene resin and is typically used for blow molding application. Blow molded parts made from this resin typically exhibits high stiffness, good impact strength and good ESCR.

## Typical Applications

Small and medium size blow molded containers for household and industrial chemicals.

This product is not intended for use in medical and pharmaceutical applications.

| Physical Properties                  | Unit              | Test Method        | Value <sup>(1)</sup> |
|--------------------------------------|-------------------|--------------------|----------------------|
| Melt Flow Index (190°C/2.16kg)       | g/10min           | ASTM D1238         | 0.25                 |
| Melt Flow Index (190°C/5.0kg)        | g/10min           | ASTM D1238         | 1.2                  |
| Density                              | g/cm <sup>3</sup> | ASTM D792 Method A | 0.954                |
| Mechanical Properties <sup>(2)</sup> |                   |                    |                      |
| Tensile Strength at Yield            | MPa               | ASTM D638          | 27                   |
| Tensile Strength at Break            | MPa               | ASTM D638          | 34                   |
| Tensile Elongation at Break          | %                 | ASTM D638          | 740                  |
| Flexural Modulus                     | MPa               | ASTM D790          | 1200                 |
| Tensile Impact                       | kJ/m <sup>2</sup> | ASTM D1822         | 200                  |
| Izod Impact, Notched 23 °C           | kJ/m <sup>2</sup> | ASTM D256          | 10                   |
| Izod Impact, Notched -30 °C          | kJ/m <sup>2</sup> | ASTM D256          | 5                    |
| Hardness Shore D                     |                   | ASTM D2240         | 68                   |
| ESCR (Igepal 10%) F <sub>50</sub>    | hour              | ASTM D1693         | 63                   |
| Thermal Properties <sup>(2)</sup>    |                   |                    |                      |
| Vicat Softening Temperature @10N     | °C                | ASTM D1525         | 127                  |

(1) Typical values only, not to be construed as specification limits

(2) Test specimen preparation method: Pursuant to ASTM D4976

**Processing conditions:** Recommended melt temperature: 160 – 200 °C

**Storage and handling:** Aramco HDPE B5403 should be stored in a dry cool place with adequate ventilation and protected from UV-light at temperature below 50 °C

**Food Contact and other Regulations:** Aramco HDPE B5403 resins are suitable for food contact applications. Detailed information is provided in Material Safety Datasheet and for additional specific information, please contact Saudi Aramco Products Trading Company for certificates.

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