59th Floor Almas Tower JLT, Dubai, UAE T: +971 4 3699964 F: +971 4 3623981 P.O.BOX:5321

# **TECHNICAL DATA SHEET**

# BB2588 -( HIGH DENSITY POLYETHYLENE )

## **Product Description**

BB2588 is a multimodal, high-density polyethylene intended for blow moulding with high stiffness and superior environmental stress crack resistance (ESCR). This grade exhibits excellent organoleptic properties.

#### **Application:**

- BB2588 is recommended for use in up to 10 liters size detergents, cleaners, motor oils, cosmetics, personal care, household and industrial chemical bottles .
- -Food packaging (Juices, Milk)

## **Special Features:**

• Superior environmental stress crack resistance • High stiffness • Easy flow

# **Origin:** Singapore

- Borouge Pte Ltd

| Physical Properties                 | Conditions        | Method       | Value | Unit     |
|-------------------------------------|-------------------|--------------|-------|----------|
| Density                             |                   | ISO 1183     | 958   | kg/m³    |
| Melt Flow Rate (MFR <sub>2</sub> )  | (190°C / 2.16kg)  | ISO 1133     | 0.23  | g/10 min |
| Melt Flow Rate (MFR₅)               | (190°C / 5.0kg)   | ISO 1133     | 1.0   | g/10 min |
| Melt Flow Rate (MFR <sub>21</sub> ) | (190°C / 21.6kg)  | ISO 1133     | 25.0  | g/10 min |
| <u>Mechanical</u>                   |                   |              |       |          |
| Tensile Modulus                     | (1mm/min)         | ISO 527-2    | 1400  | MPa      |
| Tensile Stress @ Yield              | (50mm/min)        | ISO 527-2    | 30.0  | MPa      |
| Tensile Strain @ Yield              | (50mm/min)        | ISO 527-2    | 9.0   | %        |
| Flexural Modulus                    | (2mm/min)         | ISO 178      | 1500  | MPa      |
| Charpy Notched Impact               | (23°C)            | ISO 179      | 12    | KJ/m²    |
| Shore Hardness                      | (Shore D-3 Sec.)  | ASTM D2240   | 66    |          |
| IZOD notched impact                 | (23°c)            | ASTM D256    | 160   | J/m      |
| <u>Thermal</u>                      |                   |              |       |          |
| VICAT Softening Temperature         |                   | ISO 306      | 27    | ° C      |
| Crystallization Temperature         |                   | ISO 11357-3  | 120.5 | °C       |
| Melting Temperature                 |                   | ISO 11357-3  | 132.0 | °C       |
| Additional Properties               |                   |              |       |          |
| ESCR                                | (10% lgepal, F50) | ASTM D1693-B | >500  | Hours    |

#### **BURJAE ENERGY DMCC**



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# **Processing techniques:**

BB2588 is easy to extrude and can be used in all conventional blow moulding machines.

A melt temperature of 170 – 190°c is recommended.

## Temperature:

Barrel: 170 – 190°c
Die: 175 – 190°c

## **Storage And Handling:**

This product should be stored in dry conditions at temperature bellow 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odor generation and color changes and can have negative effects on physical properties of this product.

# **Recycling:**

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.