

High Density Polyethylene ES6004

Description:

ES6004 is a high density polyethylene, homopolymer designed for the blow-molding segment. ES6004 shows high stiffness properties, good impact resistance and good surface quality.

Applications:

Blow Molded Small Volume: Bottles for lubricant and edible oils, milk, juice and yogurt; Toys.

Process:

Blow Molding.

Control Properties:

| | ASTM Methods | Units | Values |
|-------------------------------|--------------|-------------------|--------|
| Melt Flow Rate (190°C/2.16kg) | D 1238 | g/10 min | 0.35 |
| Melt Flow Rate (190°C/21.6kg) | D 1238 | g/10 min | 30 |
| Density | D 792 | g/cm ³ | 0.960 |

Typical Properties:

Plaque Properties^a

| | ASTM Methods | Units | Values |
|--|--------------|-------|--------|
| Tensile Strength at Yield | D 638 | MPa | 30 |
| Flexural Modulus – 1% Secant | D 790 | MPa | 1450 |
| Izod Impact Strength | D 256 | J/m | 275 |
| Deflection Temperature under Load at 0.455 MPa | D 648 | °C | 70 |

(a) Test specimens prepared from compression molded sheet made according to ASTM D 4703.

(b) Compression molded 2 mm thickness, 0.3 mm notched-plaques. 100% Igepal. 50°C.

Recommended Processing Conditions:

Temperature Profile:

- Feeding zone: 185°C
- Barrel: 190°C
- Die: 195°C
- Parison: 200°C
- Mold Temperature Range: 5°C to 25°C

Final Remarks:

1. This resin meets the requirements for olefin polymers as defined in 21 CFR, section 177.1520 issued by FDA – Food and Drug Administration in force on the date of publication of this specification. The additives present are covered in appropriate regulation by FDA
2. The information presented in this Data Sheet reflects typical values obtained in our laboratories, but should not be considered as absolute or as warranted values. Only the properties and values mentioned on the Certificate of Quality are considered as guarantee of the product.
3. In some applications, Braskem has developed tailor-made resins to reach specific requirements.
4. In case of doubt regarding utilization, or for other applications, please contact our Application Engineering.
5. For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. CAS Registry number: 9002-88-4
6. The mentioned values in this report can be changed at any moment without Braskem previous communication.
7. Braskem does not recommend this grade for packages, parts or any kind of product manufacture that will be used for storage or contact with solution that will have internal contact with human body.
8. The content of this Data Sheet replaces previous revisions published for this product.
9. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.