

## High Density Polyethylene IA59

### Description:

IA59 is a High Density Polyethylene, narrow molecular weight homopolymer, produced by solution process for injection molding applications. It offers high processability and low warpage. It contains antioxidant additive.

### Application:

Cases, pails, food and general purpose containers for indoor applications.

### Control Properties:

	ASTM Methods	Units	Values
Melt Flow Rate (190/2.16)	D 1238	g/10 min	7.3
Density	D 792	g/cm <sup>3</sup>	0.960

### Typical Properties:

#### Plaque Properties<sup>a</sup>

	ASTM Methods	Units	Values
Tensile Strength at Yield	D 638	MPa	28
Tensile Strength at Break	D 638	MPa	25
Flexural Modulus – 1% Secant	D 790	MPa	1300
Shore D Hardness	D 2240	-	58
Notched Izod Impact Strength	D 256	J/m	75
Environmental Stress Cracking Resistance <sup>b</sup>	D 1693	h/F50	< 3
Vicat Softening Temperature at 10 N	D 1525	°C	129
Deflection Temperature under Load at 0.455 MPa	D 648	°C	81

(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. 10% Igepal. 50°C.

### Recommended Processing Conditions:

IA 59 has been developed for injection molding under conditions comparable to High Density Polyethylene of similar Melt Flow Index. Recommended temperature profile: 160 to 230°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 Technical Assistance.
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.

