

# HD4502C

High Density Polyethylene Resin

**Special Characteristics:** InnoPlus HD4502C are bimodal high density polyethylene with excellent environmental stress cracking resistance (ESCR) and easy processing. With distinguishing stress cracking resistance, this grade is suitable for beverage caps and closures for new caps design.

**Additive InnoPlus HD4502C :** non slip agent grade

**Typical Applications :** Beverage caps for carbonated soft drink (CSD)

**Typical Properties :**

Properties	HD4502C	Unit	Test Method
<b>Physical Properties</b>			
Melt Flow Rate (190 °C, 2.16 kg)	0.5	g/10 min	ASTM D1238
Density	0.957	g/cm <sup>3</sup>	ASTM D1505
Melting Temperature	130	°C	ASTM D1525

## Mechanical Properties (Based on compression specimens)

Tensile Strength at Yield	276	kg/cm <sup>2</sup>	ASTM D638
Tensile Strength at Break	268	kg/cm <sup>2</sup>	ASTM D638
Elongation at Break	900	%	ASTM D638
Flexural Modulus	11,800	kg/cm <sup>2</sup>	ASTM D790
Notched Izod Impact Strength	6.8 (NB)*	kg.cm/cm	ASTM D256
Durometer Hardness	62	Shore D	ASTM D2240
ESCR, F <sub>50</sub> (Condition B, 10 % Igepal)	>1,000	hrs	ASTM D1693

\* NB = NON Break

### Recommendation :

Injection Molding Process— Extrusion temperature : 180-230 °C

Compression Molding process— Extrusion Temperature 160 -230 °C

### FDA Statement :

Food and Drug Administration US FDA 21 CFR 177.1520 and Commission Regulation (EU) 10/2011. More compliance regulations and standards that related to the product shall be exhibited in Product Regulatory Certificate (PRC) document

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Note : Properties reported here are typical values of the product, not to be considered as specifications.

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