



# SABIC® HDPE CC453

HIGH DENSITY POLYETHYLENE

## DESCRIPTION

SABIC HDPE CC453 is a High Density Polyethylene specially developed for the injection and compression molding of caps & closures for the packaging of beverages. This grade offers an ideal combination of impact strength, ESCR and meet organoleptic properties requirements.

## TYPICAL APPLICATIONS

Caps & Closures for the packaging of Juice, water, milk and liquid dairy products.

## TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate (MFR)</b>			
at 190°C and 2.16 kg <sup>(1)</sup>	4	g/10 min	ASTM D1238
<b>Density at 23°C <sup>(1)</sup></b>	953	kg/m <sup>3</sup>	ASTM D1505
<b>Sensory (Organoleptic properties)</b>	Approved	-	SABIC method
<b>MECHANICAL PROPERTIES</b>			
<b>Tensile Strength at Yield <sup>(2)</sup></b>	23	MPa	ASTM D638
<b>Tensile Strength at Break</b>	21	MPa	ASTM D638
<b>Tensile Elongation at Break</b>	>800	%	ASTM D638
<b>Flexural Strength</b>	21	MPa	ASTM D790
<b>Flexural Modulus</b>	800	MPa	ISO 178/1A
<b>Izod Impact Strength</b>	150	J/m	ASTM D256
<b>Hardness (Shore D)</b>	60	-	ASTM D2240
<b>ESCR (100% Igepal), F50 <sup>(3)</sup></b>	7	Hrs	ASTM D1693B
<b>THERMAL PROPERTIES</b>			
<b>Vicat Softening Point</b>	125	°C	ASTM D1525
<b>Brittleness Temperature</b>	<-75	°C	ASTM D746

(1) Typical values: not to be construed as specification limits.

(2) Based on Injection molded specimens.

(3) Based on compression molded sheet

## CHARACTERISTICS

Approved for organoleptic properties, complies with food contacts regulations, high impact strength, easy processing by injection and compression molding machines.

## PROCESSING CONDITIONS

Typical processing conditions for CC453 are:

Melt temperature: 190 - 250°C

Mold temperature: 15 - 60°C