

SABIC[®] CC453

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.

Physical Properties	Metric	English	Comments
Density	0.953 g/cc	0.0344 lb/in ³	ASTM D1505

ESCR 100% Igepal [®]	7.0 hour	7.0 hour	F50; Based on compression molded sheet.; ASTM D1693B
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Melt Flow	4.0 g/10 min @Load 2.16 kg, Temperature 190 °C	4.0 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238
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Mechanical Properties	Metric	English	Comments
Hardness, Shore D	60	60	ASTM D2240

Tensile Strength at Break	21.0 MPa	3050 psi	ASTM D638
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Tensile Strength, Yield	23.0 MPa	3340 psi	Based on Injection molded specimens.; ASTM D638
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Elongation at Break	>= 800 %	>= 800 %	ASTM D638
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Flexural Strength	21.0 MPa	3050 psi	ASTM D790
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Flexural Modulus	0.800 GPa	116 ksi	ISO 178/1A
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Izod Impact, Notched	1.50 J/cm	2.81 ft-lb/in	ASTM D256
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Thermal Properties	Metric	English	Comments
Vicat Softening Point	125 °C	257 °F	ASTM D1525

Brittleness Temperature	<= -75.0 °C	<= -103 °F	ASTM D746
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Descriptive Properties			
Sensory (Organoleptic properties)	Approved		SABIC method