

CAP311US1 Polyethylene Copolymer

CAP311US1 is a High Density Polyethylene copolymer manufactured by INEOS Olefins & Polymers intended for the injection and compression molding of screw caps for still mineral water and lightly pressurized beverages. Developed for applications requiring excellent processability, high rigidity, enhanced stress cracking resistance and excellent organoleptic properties, CAP311US1 is well suited for packaging in direct contact with beverages and sensitive food. CAP311US1 contains a slip package for lower cap removal torques and improved capping performance. This material meets the Food and Drug Administration requirements of 21 CFR 177.1520.

Typical Properties¹

	Values		ASTM Method
	English Units	SI Units	
Resin			
Density	—	0.9600 g/cc	D4883
Melt Index 190 C/2.16 kg	—	3.8 g/10 min	D1238
Compression Molded Sample			
Tensile Strength (2 in/min)			D638
@ Yield	4,150psi	28.8 MPa	
Elongation (2 in/min)			D638
@ Break	>900%	>900%	
Flexural Modulus			
Tangent Method	224,650 psi	1,550 MPa	D790
Notched Izod Impact Strength	0.9 ft-lbf/in	4.5 kJ/m ²	D256
Environmental Stress Crack Resistance			D1693
Condition B, 10% Igepal, F50 (hrs.)	21	21	
Condition B, 100% Igepal, F50 (hrs.)	62	62	
Molecular Weight Distribution	--	Bimodal	INEOS

¹ Properties will vary and are not to be used for specification purposes.