



# LIBBY ColourCap

## Physical Properties

Libby MFG's ColourCap® high density polyethylene (HDPE) is used for signage and graphic applications where it is resistant to chipping, has high impact strength and is durable & rigid. The excellent molecular structure and superior stress crack resistance makes HDPE ideal for all types of fabrications. This resin meets the Food and Drug Administration requirement for direct food contact.

### TECHNICAL INFORMATION

Property	Method	Unit	Nominal Value
Density	ASTM D-792	g/cm <sup>3</sup>	0.954
Tensile strength at yield	ASTM D-638	psi	4000
Tensile modulus	ASTM D-638	psi	n/a
Elongation at yield	ASTM D-638	%	18
Elongation at break	ASTM D-638	%	700
Tensile impact	DIN 53448	ft-lbs/in <sup>2</sup>	550
Flexural modulus	ASTM D-790	psi	165,000
Flexural strength	ASTM D-790	psi	3,800
Izod impact	ASTM D-4020	ft-lbs/in <sup>2</sup>	17
IZOD impact notched	ASTM D-2240	ft-lbs/in <sup>2</sup>	3.5
Compressive modulus	ASTM D-695	psi	n/a
Compressive deformation	ASTM D-621	% at 1000 psi	n/a
Melting point	ASTM D-3417	°F	290
Hardness	ASTM D-2240	Shore D	65
Coefficient of linear thermal expansion	ASTM D-696	in/in/ °F	6.7 x 10 <sup>-5</sup>
Heat deflection temperature, 66 psi	ASTM D-648	°F	165
Max. operating temp.		°F	170
Volume Resistivity	ASTM D-257	Ohm-cm	>10 <sup>15</sup>
Surface Resistivity	ASTM D-257	Ohm	>10 <sup>15</sup>
Water absorption 24hrs.	ASTM D-570	%	0.0001

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