



## Product Data Sheet

# Somos<sup>®</sup> 8110

### Description

DSM's Somos<sup>®</sup> 8110 is a high-speed liquid photopolymer that produces flexible, high-impact strength, accurate parts using stereolithography machines. It has a wide processing latitude and excellent tolerance to a wide range of temperatures and humidity during and after the build.

### Applications

Somos<sup>®</sup> 8110 photopolymer is used in the solid imaging process to build three-dimensional parts. This material is especially useful in functional applications where flexibility and impact strength are critical requirements (e.g., plastic bottles, packaging, automobile panels, electronic enclosures, medical products and snap-fit parts).

#### TECHNICAL DATA - LIQUID PROPERTIES

Appearance	Transparent amber
Viscosity	~600 cps @ 30°C
Density	~1.11 g/cm <sup>3</sup> @ 25°C

#### TECHNICAL DATA - OPTICAL PROPERTIES

E <sub>c</sub>	6.0 mJ/cm <sup>2</sup>	[critical exposure]
D <sub>p</sub>	5.3 mils	[slope of cure-depth vs. ln (E) curve]
E <sub>10</sub>	40 mJ/cm <sup>2</sup>	[exposure that gives 0.254 mm (.010 inch) thickness]

TECHNICAL DATA					
Mechanical Properties		Somos® 8110 UV Postcure		Polyethylene*	
ASTM Method	Property Description	Metric	Imperial	Metric	Imperial
D638M	Tensile Strength	18 MPa	2.6 ksi	13 - 28 MPa	1.9 - 4.1 ksi
D638M	Elongation at Yield	27%	27%	100 - 965%	100 - 965%
D638M	Young's Modulus	317 MPa	46 ksi	262 - 517 MPa	38 - 76 ksi
D790M	Flexural Strength	11 MPa	1.6 ksi	N/A	N/A
D790M	Flexural Modulus	310 MPa	45 ksi	276 - 724 MPa	4 - 10.5 ksi
D2240	Hardness (Shore D)	77	77	44 - 50	44 - 50
D256A	Izod Impact (Notched)	87 J/m	1.6 ft-lb/in	53 J/m	0.99 ft-lb/in
D648-07	Deflection Temperature	54°C	129°F	55 - 56°C	131 - 132°F

\*Low and medium density polyethylene linear copolymer  
(Reference: Modern Plastics Encyclopedia, 1998).



Curbell Plastics is a proud supplier of DSM Somos® materials.

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