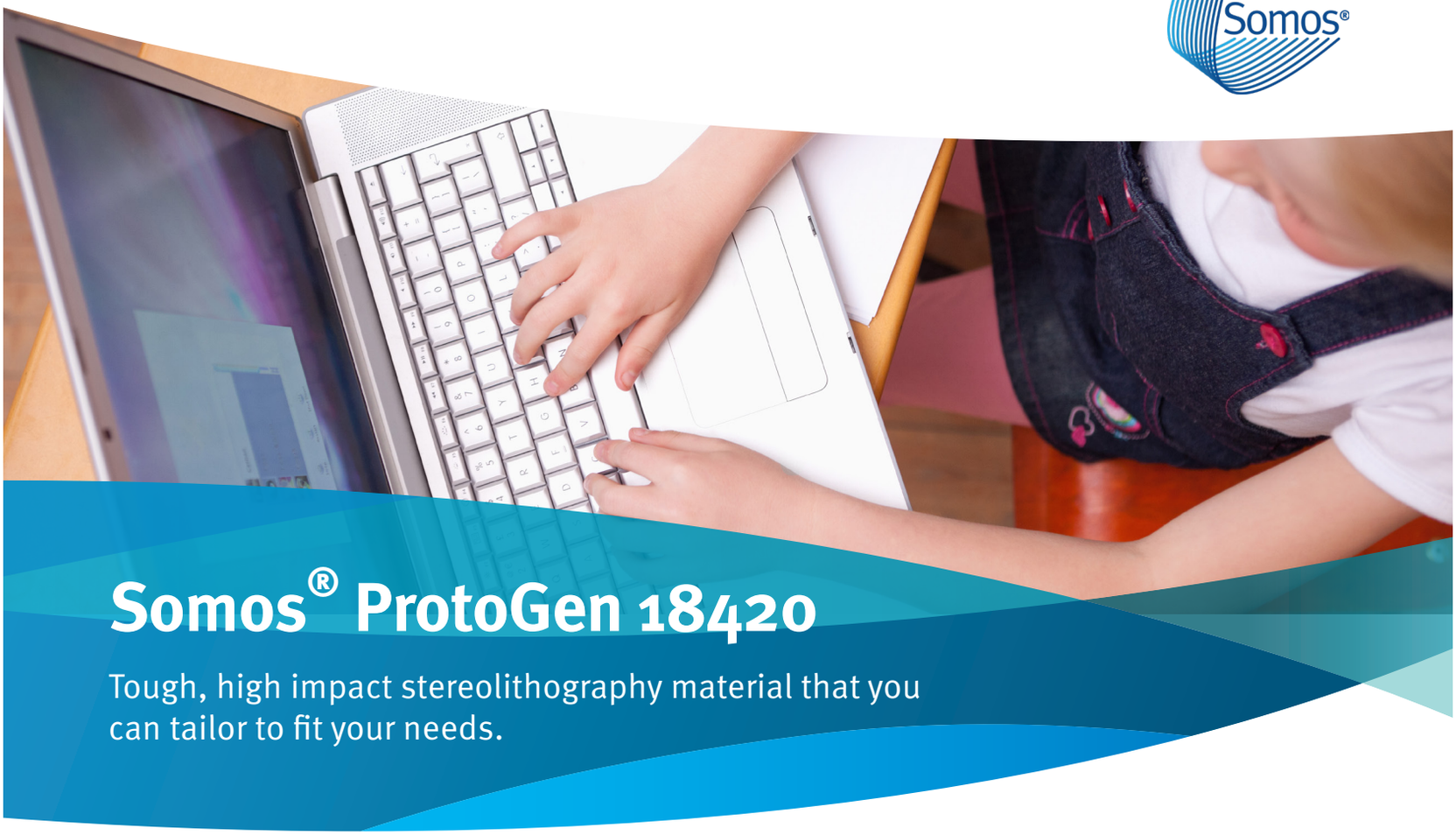

Somos® ProtoGen 18420

Tough, high impact stereolithography material that you can tailor to fit your needs.

Description

When you need a high-heat and humidity resistant material for your parts, Somos® ProtoGen 18420 delivers the performance you need. This material creates accurate, easy-to-clean parts, ideal for automotive and medical applications.

Benefits

- Tune the properties of the part to fit your needs
- Fast, easy processing & finishing
- Highly accurate

Applications

- Automotive parts
- Medical
- Consumer products
- Electrical casings

Somos® ProtoGen 18420 Technical Data

stratasys DIRECT MANUFACTURING

Liquid Properties		Optical Properties		
Appearance	Off-white	E_C	6.7 mJ/cm²	[critical exposure]
Viscosity	~350 cps @ 30°C	D_P	4.3 mils	[slope of cure-depth vs. In (E) curve]
Density	~1.16 g/cm3 @ 25°C	E_{10}	68.6 mJ/cm²	[exposure that gives 0.254 mm (.010 inch) thickness]

Mechanical Properties		UV Postcure	
ASTM Method	Property Description	Metric	Imperial
D638M	Tensile Modulus	2,250 MPa	326 ksi
D638M	Tensile Strength at Yield	43 MPa	6.2 ksi
D638M	Elongation at Break	12%	
D2240	Flexural Modulus	2,060 MPa	299 ksi
D256A	Izod Impact (Notched)	21 J/m	0.39 ft-lb/in
D2240	Hardness (Shore D)	87	
D570-98	Water Absorption	0.68%	

Thermal/Electrical Properties		UV Postcure	
ASTM Method	Property Description	Metric	Imperial
E831-05	C.T.E. -40 - 0°C (-40 - 32°F)	75 µm/m°C	42 µin/in°F
E831-05	C.T.E. 0 - 50°C (32 - 122°F)	106 µm/m°C	59 µin/in°F
E831-05	C.T.E. 50 - 100°C (122 - 212°F)	125 µm/m°C	70 µin/in°F
E831-05	C.T.E. 100 - 150°C (212 - 302°F)	134 µm/m°C	74 µin/in°F
D150-98	Dielectric Constant 60 Hz	3.6	
D150-98	Dielectric Constant 1 KHz	3.5	
D150-98	Dielectric Constant 1 MHz	3.2	
D149-97A	Dielectric Strength	14 V/mm	355 V/mil
D648	HDT @ 0.46 MPa (66 psi)	96°C	205°F

These values may vary and depend on individual machine processing and post-curing practices.

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