

SM412 Elastomeric Material

General Information

SM412 is formulated to work with DLP and SLA 3D printers using 385-405 nm light. It is specifically tuned to print on the Autodesk Ember printer. SM412 will extend the window lifetime of the Ember and other printers that use PDMS windows. This resin is recommended for applications where high elongation and low modulus are required. SM412 is offered in black.

Chemical Data

			Method
Viscosity (cps @25 °C)	900		Brookfield SP #31
	Fresh Print	Post-cured	
Tensile Modulus (mPa)	2	7	ASTM D 638-14
Tensile Strength (mPa)	1	7	ASTM D 638-14
Elongation (%)	70	150	ASTM D 638-14

Recommended Ember Print Parameters for 50 µm layers

First layer

Wait before exposure	15 s
Exposure	8 s
Separation and approach velocity	4 rpm

Burn in layer

Wait before exposure	10 s
Exposure	4s
Separation and approach velocity	4 rpm

Model layer

Wait before exposure	3 s
Exposure	2.2 s
Separation and approach velocity	7 rpm

Print parameters may require modification based on the geometry of the printed part.

Post Cure Procedure

Parts should be post cured under a broad band, UV light for 10 minutes on a side at 30 mW/cm² to bring the parts up to their full properties. Properties will vary with different post cure treatments.

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