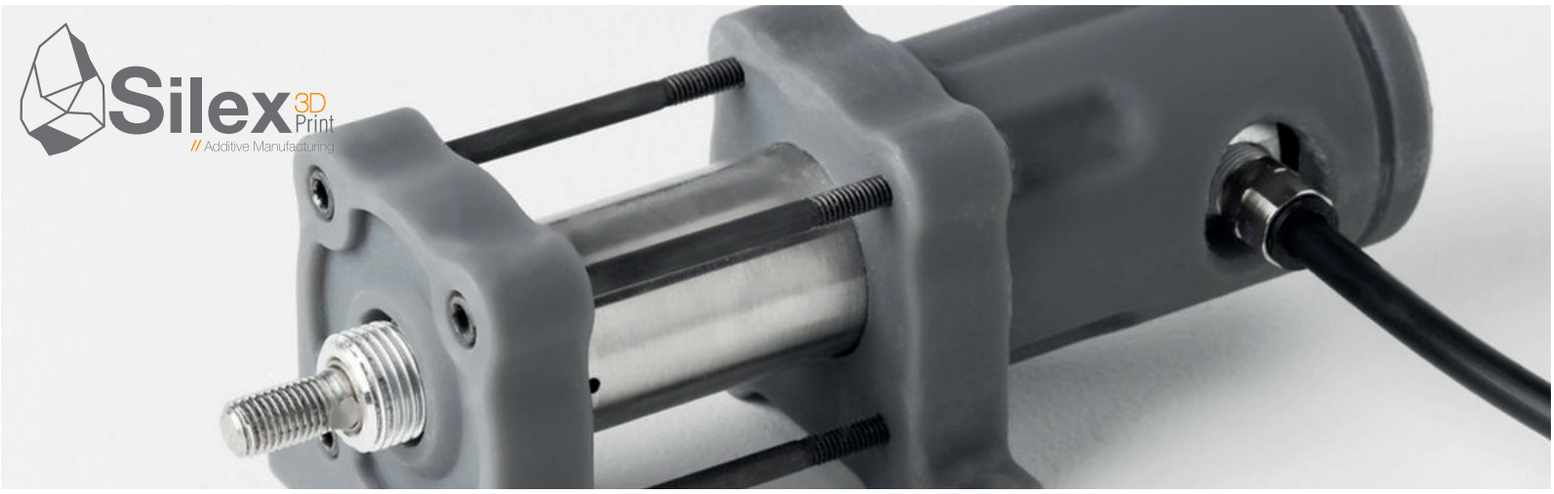

Résine
GREY PRO

Caractéristiques

La résine Grey Pro a un allongement modéré, un fluage faible et une résistance à la chaleur élevée.

Applications

- Prototypes fonctionnels
- Test d'ajustement
- Moules pour plastiques, silicones et autres matériaux
- Dispositifs de support et de fixation

Résine
GREY PRO

	METRIC[1]		IMPERIAL[1]		METHOD
	Green[2]	**Postcured[3]**	**Green[2]**	**Postcured[3]**	
Tensile Properties					
Ultimate Tensile Strength	35 MPa	61 MPa	5076 psi	8876 psi	ASTM D 638-14
Tensile Modulus	1.4 GPa	2.6 GPa	203 ksi	377 ksi	ASTM D 638-14
Elongation	32.5 %	13 %	32.5 %	13 %	ASTM D 638-14
Flexural Properties					
Flexural Stress at 5% Strain	39 MPa	86 MPa	5598 psi	12400 psi	ASTM D 790-15
Flexural Modulus	0.94 GPa	2.2 GPa	136 ksi	319 ksi	ASTM D 790-15
Impact Properties					
Notched IZOD	not tested	18.7 J/m	not tested	0.351 ft-lbf/in	ASTM D256-10
Temperature Properties					
Head Deflection Temp. @ 1.8 MPa	not tested	62.4 C	not tested	144.3 °F	ASTM D 648-16
Heat Deflection Temp. @ 0.45 MPa	not tested	77.5 C	not tested	171.5 °F	ASTM D 648-16
Thermal Expansion (-30 to 30° C)	not tested	78.5 um/m/C	not tested	43.4 µin/in/°F	ASTM E 831-13

NOTES
[1] Material properties can vary with part geometry, print orientation, print settings, and temperature
[2] Data was obtained from green parts, printed using Form 2, 100 µm, Grey Pro settings, without additional treatments.
[3] Data was obtained from parts printed using Form 2, 100 µm, Grey Pro settings and postcured with a Formcure for 120 minutes at 80 C

SOLVENT COMPATIBILITY

Percent weight gain over 24 hours for a printed and post-cured 1 x 1 x 1 cm cube immersed in respective solvent:

	24 HR WEIGHT GAIN (%)
Acetic Acid, 5 %	0.75
Acetone	10.77
Isopropyl Alcohol	1.56
Bleach, ~5 % NaOCl	0.65
Butyl Acetate	0.84
Diesel	0.08
Diethyl glycol monomethyl ether	2.38
Hydrolic Oil	0.16
Skydrol 5	0.54
Hydrogen Peroxide (3 %)	0.75
Isooctane	0.02
Mineral Oil, light	0.35
Mineral Oil, heavy	0.27
Salt Water (3.5 % NaCl)	0.64
Sodium hydroxide (0.025 %, pH = 10)	0.72
Water	0.83
Xylene	0.42
Strong Acid (HCl Conc)	8.21