formlabs

GENERAL PURPOSE RESIN

Grey Pro Resin

Resin for Versatile Prototyping

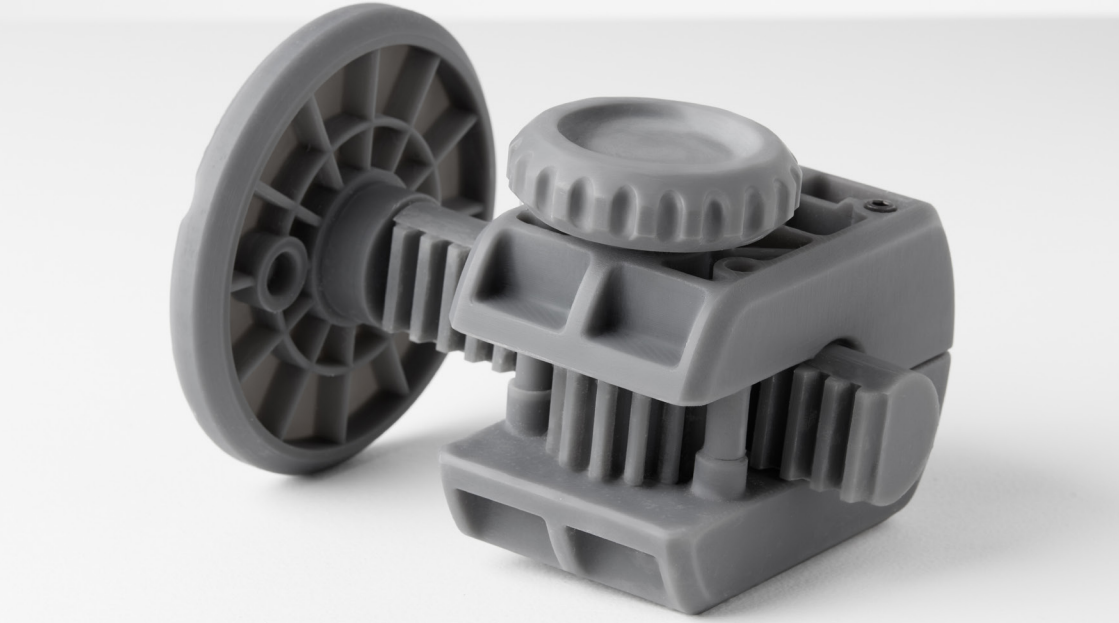
Grey Pro Resin offers high precision, moderate elongation, and low creep. This material is great for concept modeling and functional prototyping, especially for parts that will be handled repeatedly.

Form and fit testing

High quality product prototypes

Mold masters for plastics and silicones

Jigs and fixtures for manufacturing



V1 **FLPRGR01**

*** May not be available in all regions**

Prepared 10/07/2024

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Material Properties	METRIC [1]		IMPERIAL [1]		METHOD
	Green [2]	Post-Cured [3]	Green [2]	Post-Cured [3]	
Tensile Properties	METRIC [1]		IMPERIAL [1]		METHOD
Ultimate Tensile Strength	35 MPa	61 MPa	5076 psi	8876 psi	ASTM D638-14
Tensile Modulus	1.4 GPa	2.6 GPa	203 ksi	377 ksi	ASTM D638-14
Elongation at Break	33%	13%	33%	13%	ASTM D638-14
Flexural Properties	METRIC [1]		IMPERIAL [1]		METHOD
Flexural Stress at 5% Strain	39 MPa	86 MPa	5598 psi	12400 psi	ASTM D790-15
Flexural Modulus	0.94 GPa	2.2 GPa	136 ksi	319 ksi	ASTM D790-15
Impact Properties	METRIC [1]		IMPERIAL [1]		METHOD
Notched Izod	Not tested	19 J/m	Not tested	0.35 ft-lbf/in	ASTM D256-10
Thermal Properties	METRIC [1]		IMPERIAL [1]		METHOD
Heat Deflection Temp. @ 1.8 MPa	Not tested	62 °C	Not tested	144 °F	ASTM D648-16
Heat Deflection Temp. @ 0.45 MPa	Not tested	78 °C	Not tested	171 °F	ASTM D648-16
Thermal Expansion (0-150 °C)	Not tested	79 µm/m/°C	Not tested	43 µin/in/°F	ASTM E831-13

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:

Solvent	24 hr weight gain, %	Solvent	24 hr weight gain, %
Acetic Acid 5%	0.8	Isooctane (aka gasoline)	< 0.1
Acetone	11.0	Mineral oil (light)	0.4
Isopropyl Alcohol	1.6	Mineral oil (Heavy)	0.3
Bleach ~5% NaOCl	0.7	Salt Water (3.5% NaCl)	0.6
Butyl Acetate	0.8	Sodium Hydroxide solution (0.025% PH 10)	0.7
Diesel Fuel	< 0.1	Water	0.8
Diethyl glycol Monomethyl Ether	2.4	Xylene	0.4
Hydraulic Oil	0.2	Strong Acid (HCl conc)	8.2
Skydrol 5	0.5	Xylene	0.4
Hydrogen peroxide (3%)	0.8		

[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 post-cured with a Form Cure for 120 minutes at 80 °C.