

Grey Resin V4.1

An optimally-balanced Grey Resin for versatile applications

Grey Resin is perfect for general-purpose prototyping and design, and models with intricate details. With a matte surface finish, opaque appearance, and precise details, prints are ready to use right off the printer. Its neutral undertone makes a great base for parts that will eventually be painted or undergo other finishing processes.

Grey Resin V4.1 is compatible with Form 3 Series printers. Grey Resin V4.1 produces tougher parts compared to Grey Resin V4 (Legacy).

Form and fit prototyping

Presentation-ready models with fine features and intricate details

General dental models

Jigs and fixtures



FLGPR41

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To the best of our knowledge the information contained herein is accurate. However, Formlabs, Inc. makes no warranty, expressed or implied, regarding the accuracy of these results to be obtained from the use thereof.

Material Properties	METRIC ¹		IMPERIAL ¹		METHOD
	Green	Post-Cured for 30 min at 60°C ²	Green	Post-Cured for 30 min at 140 °F ³	
Tensile Properties	METRIC ¹		IMPERIAL ¹		METHOD
Ultimate Tensile Strength	30 MPa	47 MPa	4351 psi	6817 psi	ASTM D638-14
Tensile Modulus	1275 MPa	2201 MPa	185 ksi	319 ksi	ASTM D638-14
Elongation at Break	31%	10%	31%	10%	ASTM D638-14
Flexural Properties	METRIC ¹		IMPERIAL ¹		METHOD
Flexural Strength	44 MPa	90 MPa	6382 psi	13053 psi	ASTM D790-15
Flexural Modulus	1294 MPa	2352 MPa	188 ksi	341 ksi	ASTM D790-15
Impact Properties	METRIC ¹		IMPERIAL ¹		METHOD
Notched Izod	29 J/m	27 J/m	0.551 ft-lb/in	0.511 ft-lb/in	ASTM D256-10
Thermal Properties	METRIC ¹		IMPERIAL ¹		METHOD
Heat Deflection Temp. @ 1.8 MPa	43 °C	50 °C	109 °F	122 °F	ASTM D648-16
Heat Deflection Temp. @ 0.45 MPa	51 °C	61 °C	124 °F	141.8 °F	ASTM D648-16

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%	0.5	Mineral Oil (Heavy)	0.0
Acetone	3.1	Mineral Oil (Light)	0.0
Bleach ~5% NaOCl	0.4	Salt Water (3.5% NaCl)	0.4
Butyl Acetate	-0.1	Skydrol 5	0.2
Diesel Fuel	0.0	Sodium Hydroxide Solution (0.025% PH = 10)	0.4
Diethyl Glycol Monomethyl Ether	0.5	Strong Acid (HCl conc)	0.2
Hydraulic Oil	0.5	TPM	0.1
Hydrogen Peroxide (3%)	0.0	Water	0.5
Isooctane	0.0	Xylene	0.0
Isopropyl Alcohol	-0.1		

¹ Material properties may vary based on part geometry, print orientation, print settings, temperature, and disinfection or sterilization methods used.

² Data was obtained from parts printed on a Form 3 printer with 100 µm Grey Resin V41 settings, washed in a Form Wash (2nd Generation) for 10 minutes in >99% Isopropyl Alcohol, and post-cured at 60 °C for 30 minutes in a Form Cure.

³ Data was obtained from parts printed on a Form 3 printer with 100 µm Grey Resin V41 settings, washed in a Form Wash (2nd Generation) for 10 minutes in >99% Isopropyl Alcohol, and post-cured at 140 °F for 30 minutes in a Form Cure.