||| yaron@3dze.design – 054-799-4836 ||| aviad@3dze.design – 058-769-0000 |||
\ סגולה 9 \ אפ"ק 10 תל אביב , 6811609 \ טרי.די.זה יצירות ע.מ 558307583 \

Grey Eng. HD

Grey Eng. HD Resin's high precision, moderate elongation, and resistance to deformation over time make it a versatile material suitable for a wide range of engineering applications. Supports print resolutions: 100 and 50 microns.

Is an Engineering Resin designed for high precision, moderate elongation, and low creep. These mechanical properties make Grey Eng. HD Resin a versatile material for a wide range of engineering applications, including concept modeling and functional prototyping. Highly resistant to deformation over time, Grey Eng. HD Resin is especially suitable for printing parts intended for repeated use or handling.

Material properties:

	METRIC[1]		IMPERIAL[1]		METHOD
	Green[2]	**Postcured[3]**	**Green[2]**	**Postcured[3]**	
Tensile Properties					
Tensile Strength at yield	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 at Failure	32.5%	13%	32.5%	13%	ASTM D 638-14
Flexural Properties					
Flexural Modulus	0.94 GPa	2.2 GPa	136 ksi	319 ksi	ASTM C 790-15
Impact Properties					
Notched IZOD	Not Tested	18.7 J/m	Not Tested	0.35 ft-lbf/in	ASTM D 256-10
Temperature Properties					
Heat deflection temp. @ 264 psi	42.7 °C	58.4 °C	108.9 °F	137.1 °F	ASTM D 648-16
Heat deflection temp. @ 66 psi	49.7 ºC	73.1 ºC	121.5 ºF	163.6 ºF	ASTM D 648-16

NOTES:

[1]Material properties can vary with part geometry, print orientation, print settings and temperature.

[2]Data was obtained from green parts, printed on 100 µm, Clear settings, without additional treatments.

||| yaron@3dze.design – 054-799-4836 ||| aviad@3dze.design – 058-769-0000 |||
\ סגולה 9 \ אפ"ק 10 תל אביב , 6811609 \ טרי.די.זה יצירות ע.מ 558307583 \

||| yaron@3dze.design – 054-799-4836 ||| aviad@3dze.design – 058-769-0000 |||
\ סגולה 9 \ אפ"ק 10 תל אביב , 6811609 \ טרי.די.זה יצירות ע.מ 558307583 \

SOLVENT COMPATIBILITY

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:

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