

LOCTITE®

nexa3D®

xPRO410

High Accuracy Rigid Photoplastic

Nexa3D
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Preliminary v1.0

xPRO410

Description

Nexa3D xPRO410 is a fast printing, rigid photopolymer that can be printed with very high resolution features. Formulated with exceptional surface finish and extremely high print accuracy. IND410 exhibits dimensional accuracy of within 0.2%¹³ after post curing. This product is perfect for printing accurate prototypes, that will be exposed to temperatures up to 70°C. Accuracy, combined with high HDT, makes this product ideal for consumer goods functional prototyping and small series production.

Available Color: Black

Mechanical Properties	Method	Green	LED 405nm Post Cured
Tensile Strength at Break	ASTM D638	20.71 MPa ¹	41.6 MPa ²
Young's Modulus	ASTM D638	796 MPa ¹	2365 MPa ²
Elongation at Failure	ASTM D638	14.05 % ¹	5.46 % ²
Other Properties			
IZOD Impact Strength (Notched)	ASTM D256	-	25 J/m ⁴
HDT @ 0.455 MPa	ASTM D648	53 °C ⁶	61 °C ⁷
Shore hardness (Durometer)	ASTM D2240	69 D ⁹	79 D ¹⁰
Dimensional Stability (green - post cure)	Internal		0.28
Liquid Properties			
Viscosity @ 25°C (77°F)	400-600 cP ¹²		

"All specimen are printed unless otherwise noted. All specimen were conditioned in ambient lab conditions at 19-23C / 40-60% RH for at least 24 hours." ASTM Methods: D638 Type V, 10mm/min. D256 Notched IZOD (Machine Notched), D648; D2240, Type "D" (0, 3 seconds);

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|------------------|-------------------|-------------------------------------|
| 1. Task FOR20868 | 6. Task FOR21754 | 11. Task FOR21416 |
| 2. Task FOR20350 | 7. Task FOR20352 | 12. Task FOR17012 |
| 3. Task FOR20930 | 8. Task FOR20878 | 13. Task FOR20921 FOR22780 FOR20117 |
| 4. Task FOR20317 | 9. Task FOR 21415 | |
| 5. Task FOR21384 | 10. Task FOR21413 | |

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Post Processing

Nexa3D xPRO410 requires post processing to achieve specified properties. Prior to post curing, support structures should be removed from the printed part, and the part should then be washed. Nexa3D recommends 2 wash intervals in IPA or xClean for 2 minutes each wash interval.

Post Curing

Nexa3D xPRO410 requires post curing to achieve specified properties.

It is recommended that either an LED or wide spectrum lamp be used to post cure parts.

An LED flood system of 65mW 405nm and cured 10 minutes per side (total 20 minutes cure time)- example used to generate the above data was Loctite CL36 cure chamber.

Additional methods can be found by contacting us at www.nexa3d.com.

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Note

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Nexa3D is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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