

# nexa3D®



# xMODEL 2505

## Dental Model Material

**Nexa3D**

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## Description

Nexa3D xMODEL 2505 is a high resolution dental model material suitable for modeling and thermoforming applications. It is a meth-acrylate based resin suitable for use on Nexa3D printers, including NXE400 and NXD200 printers. Curing profiles are developed for 100 and 50 µm layer heights.

Color: Beige

## Mechanical Properties

Mechanical Properties	Method	xMODEL 2505
Tensile Stress at Break	ASTM D638	54 MPa
Young's Modulus	ASTM D638	2500 MPa
Elongation at Failure	ASTM D638	4%
Flexural Strength	ASTM D790	83 MPa
Flexural Modulus	ASTM D790	2150 MPa
<b>Other Properties</b>		
Shore Hardness	ASTM D2240	73 D
Viscosity @ 30°C (86°F)	Cone/Plate Rheometer	80 mPas
Liquid Density	ASTM D4052-18a	1.1g/cm <sup>3</sup>
Solid Density	ASTM D792	1.2g/cm <sup>3</sup>

\*Results based on validated workflow

## Validated Workflows

Exposure Parameters	NexaX default
Primary Wash	2min, Isopropyl Alcohol
Secondary Wash	2min, Isopropyl Alcohol (low saturation) with Ultrasonic
Dry	30min air dry
Cure	30min in xCure, ambient temperature

Exposure Parameters	NexaX default
Primary Wash	3min, distilled water Ultrasonic bath
Secondary Wash	3min, distilled water (low saturation) Ultrasonic bath, soft brush if needed
Blow Off	Blow dry with pressurized air
Dry	30min dry in 40°C warming cabinet
Cure	30min in xCure, ambient temperature

Exposure Parameters	NexaX default
Primary Wash	2min, xClean in xWash station low agitation speed
Dry	10 min drip dry
Secondary Wash	2min, Isopropyl Alcohol (low saturation) with Ultrasonic
Dry	30min air dry
Cure	30min in xCure, ambient temperature

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## Usage Notes

The material should be processed at room temperature. Nexa3D xMODEL 2505 should be well mixed before each print job, color deviation or failed prints might occur when not mixed thoroughly. It's recommended to use a bottle roller (roller bench) for mixing with suitable ceramic beads for at least 30 minutes. Pour it slowly in the vat and wait a couple minutes, until the bubbles are gone before starting the print job.

Keep container tightly closed in a room temperature, well-ventilated place. Keep container dry. If Material is not being used fill it back through a filter in the corresponding material bottle. The filter prevents to fill cured pieces or failed prints back into the bottle. Uncured Nexa3D xMODEL 2505 must be disposed of or incinerated in accordance with local regulations.

The mechanical and physical properties of Nexa3D xMODEL 2505 are highly dependent on the printing parameters used as well as part geometry. It is common that validated workflows need to be adjusted for unusually thick or thin geometries. Even if the properties observed in your lab don't match the TDS, it does not signify that something is "wrong,".

Refer to the SDS for additional information.

## Note

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