

GelMA 95% DS

STOCK SOLUTION USAGE GUIDE

The CELLINK lineup of photoink components, tailored for light-based 3D bioprinting, provide room for customization based on the application. Users new to ink formulation may follow this usage guide to create a printable material. This guide covers an example formulation for a photoink based on the GelMA 95% DS Stock Solution.

PHOTOINK RECIPE

COMPONENT	VOLUME*
GelMA 95% DS Stock Solution**	10 mL
Xcite	1.875 mL
Xsorb	0.1875 mL
PBS	2.9375 mL

*Produces 15 mL of photoink solution, with a GelMA concentration of 10%

**GelMA 95% DS Stock Solution must be heated to XX degrees for optimal pipetting

PARAMETERS

LAYER THICKNESS	EXPOSURE	BUILD PLATFORM ADHESION	POWER
100 μ m	5 s	10 s	20 mW/cm ²

NOTES

This formulation can be tailored to impart property changes. Note that subsequent parameter changes will also be necessary.

- **Faster Reactivity:** Increase the proportion of Xcite.
- **Finer Spatial Resolution:** Increase the proportion of Xsorb.
- **Softer Mechanical Properties:** Decrease proportion of stock polymer and/or replace some stock with a solution of long-chain polymer.
- **Stiffer Mechanical Properties:** Increase proportion of stock solution and/or replace some stock with a solution of short-chain polymer.
- **Other Properties (polymers, growth factors, etc.):** Replace stock solution or PBS with a solution of the target substance and/or add additional powders to the photoink solution.