

Specification Sheet

GelXA

Product description	GelXA is based on GelMA and incorporates xanthan gum and alginate to enhance printability, ease-of-use and stability post-printing. GelXA offers dual-crosslinking capabilities through photocuring and treatment with the included Crosslinking Agent. For description on how to mix with cells, bioprint and crosslink, follow the Bioprinting Protocol .
Intended use	Biocompatible material for 3D bioprinting, Research Grade . For research use ONLY. Not intended for <i>in vitro</i> diagnostics or <i>in vivo</i> uses. Not intended for administration in humans or animals. Produced under sterile and aseptic conditions.
Product number	IK3X2102
Shelf life	Minimum 2 months months, expiration date stated on package.
Storage and handling	Store at 4-8°C. DO NOT FREEZE. Avoid temperature fluctuations. Ensure that the bioink container is capped prior to storage to prevent drying. Protect from light.
Safety	Handle in accordance with good hygiene and laboratory safety practices. Read Safety Data Sheet for more information regarding ingredients and potential hazardous compounds.
Related documents	Bioprinting Protocol as well as Safety Data Sheet can be downloaded from our https://cellink.com/product/gelxa/ or scan the QR code below.



Property	Specification	Method
<i>Appearance</i>	Semi-translucent gel	Visual inspection.
<i>Sterility</i>	Sterile	Tested for the presence of bacteria, fungi and yeast. Tested on raw materials.
<i>Endotoxin level</i>	<30 EU/mL	Limulus Amoebocyte Lysate assay, Pharmacopoeia 2.6.14 "Bacterial endotoxins": Method D, accredited by SWEDAC. Accreditation Certification 1240: ISO 15189, 2010-11-22. Tested on raw materials.
<i>pH</i>	6.5-7.4	Assessed with pH paper.
<i>GelMA degree of methacrylation</i>	45-55%	¹ H NMR performed at room temperature, acquired with a spectral width of 8013 Hz, or 16 ppm, averaged over 64 scans using 64K time domain points. Acrylate peaks present at 5.4 and 5.6, methyl at 1.9 ppm.
<i>Gelation temperature</i>	23-27°C	Tested using rotational 20 mm plate-plate HR-2 TA Instruments Rheometer. Temperature sweep from 40°C-15°C, at 1% strain and 10 rad/s angular frequency.
<i>Viscosity</i>	90-350 Pa·s	Tested using rotational 20 mm plate-plate HR-2 TA Instruments Rheometer, assessed at 1 s ⁻¹ . Flow sweep parameters: shear rate from 0.001 s ⁻¹ to 100 s ⁻¹ , 23°C.