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Specification Sheet

GelMA 20%

Product description	GelMA 20% (w/w) is a concentrated solution of porcine gelatin functionalized with methacrylate groups. Follow the <i>Dilution Protocol GelMA 20%</i> for instruction on how to prepare your GelMA based bioink. For a detailed description of a bioprinting process, follow the <i>Bioprinting Protocol GelMA Bioink</i> . Mixed with a LAP photoinitiator, GelMA hydrogels are easily photocrosslinked using 365 nm or 405 nm LED modules.	
Intended use	Biocompatible material for 3D bioprinting, <i>Research Grade</i> . For research use ONLY. Not intended for <i>in vitro</i> diagnostics and <i>in vivo</i> uses. Not intended for administration in humans or animals. Produced under sterile and aseptic conditions.	
Product number	IKG1250000005	
Shelf life	Minimum 4 months, expiration date stated on package.	
Storage and handling	Store at 4-8°C. DO NOT FREEZE. Protect from light. Avoid	
	temperature fluctuations.	
Safety	Handle in accordance with good hygiene and laboratory safety practices. Read <i>Safety Data Sheet (SDS) GelMA Solution</i> for more information regarding ingredients and potential hazardous compounds.	





Property	Specification	Method
Appearance	Clear amber gel	Visual inspection.
Sterility	Sterile	Tested for the presence of bacteria, fungi and yeast.
Viscosity	168±60 Pa·s	Diluted to 10% with Reconstitution Agent P. 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 , 26°C.
рН	7-7.4	Diluted to 10% with Reconstitution Agent P. Measured with pH paper or pH meter.
Degree of methacrylation	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.