

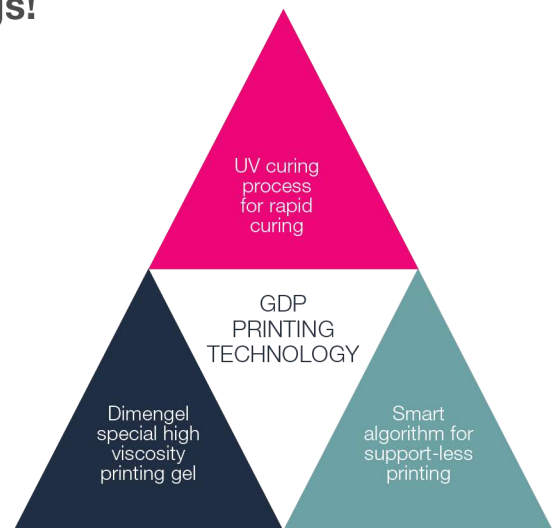
GDP Technology and Dimengel

Effective 3D printing technology

Gel Dispensing Printing. Powering Big Things!

Gel Dispensing Printing (GDP) technology is a ground-breaking 3D printing technology that enables the production of super-sized, lightweight 3D objects at unprecedented speed.

GDP works by harmonizing fast movement, smart algorithms and smart support, as well as a proprietary photo polymeric gel, called Dimengel, that cures rapidly with exposure to UV light. With its printing heads running and creating layers at up to 1m/s, 2.2mph. GDP is capable of building up objects of up to 35cm/14in. per hour. Due to Dimengel's high viscosity parameters non-vertical walls and ceilings can be printed without the need of a support structure.



Key Benefits

- Lightweight “hollow” structures
- High structural strength
- Support-less printing
- Wide variety of coatings and finishes can be applied
- Non-flammable

Environmentally Friendly

- Additive process with minimal waste
- Efficient digital process eliminates post-printing clean-up and low consumption of material
- Low energy consumption with LED UV
- Lightweight printouts minimize emissions of transportation and handling

Dimengel - The Heart of GDP

Massivit's proprietary Dimengel combines exceptional properties with the benefit of rapid curing.

Essential Data

Properties of Dimengel 100 Base Material*

	Method	Metric Units		Imperial Units	
Tensile strength	ISO 527	MPA	50	psi	7250
Elongation at break	ISO 527	%	3	%	3
Modulus of elasticity	ISO 527	MPA	2400	psi	348,000
Flexural strength	ISO 178	MPA	80	psi	12000
Flexural modulus	ISO 178	MPA	2400	psi	348,000
HDT @0.45 MPa	ISO 75/ASTM D 648	°C	51-55	°F	124-131
Izod Notched Impact	ISO 180	KJ/m ²	2.2-2.5	ft-lb/inch ²	1.05-1.19
Shore Hardness (D)	ASTM D2240	Scale D	80-85	Scale D	80-85

Coating and Finishing

Whatever your application, you can achieve an amazing array of effects using a wide variety of coating and finishes:

- SAV - self adhesive vinyl
- Car / body filler
- Polyester
- Epoxy
- Polyuria
- Polyurethane
- Fiberglass

Regulation Compliancy

- Compliant with 1907/2006/EEC Regulation 2006 ("REACH")
- Compliant with Regulation (EC) No 1272/2008 ("CLP")
- Compliant with US The Toxic Substances Control Act (TSCA) regulations
- Does not contain any chemicals listed on California Prop. 65

Fire Resistance

Dimengel prints are compliant with the following fire resistance standards:

- Din 4102 – class B2
- ASTM D635**
- UL 94 HB**

* All measurements were done on lab specimens of cured material

** Internal lab testing

Contact us today, and add a profitable new dimension to your print business:

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