

Material Technical Data Sheet (Resin ~ SL Technology)

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Handling Notice

Resin Materials

- Always wear gloves when handling uncured resin. If skin contact with resin occurs, flush with plenty of water and use soap if available for several minutes. If skin reactions occur, it could require medical treatment immediately.
- Store the product in a cool, dry, and well-ventilated place and avoid direct sun light.
- Do not expose this light-sensitive material to direct light source when opening the bottle.
- Resin in tank should be filtered before reuse.
- Wasted resin can be exposed under the sunlight/UV light until it solidified for disposal as plastic waste.

We recommend following OSHA Personal Protective Equipment guideline and selecting protective equipment. Read more: Occupational Safety and Health Administration, <https://www.osha.gov/>

Chemical Information

All thermal energy reactions of materials can really depend on the properties like its glass transition temperature, melting point, and environmental conditions (e.g., print bed temperature, nozzle temperature, printer model, and cooling fans control) causing it to melt or solidify.

The information provided in this sheet is based on certain testing conditions that should help users to make an independent determination of the usage and wastage of the materials in a safe manner.



Resin Materials

- The HDT of resins is a temperature range under certain testing conditions measured by ASTM D648.
- This does not explain for the resin that there is no chemical change or energy absorption below the temperature of HDT. It explains when a resin deforms under a specified load, due to a phase change.
- The thermal energy reaction is considered as an irreversible process, which means that the materials cannot be converted back to liquid for reuse.

Document History

Date	Description	Version
2020-11-A	Initial Draft	20.11.A



ProBasic Resin

The resin provides a wide range of applications and moderate rigidity, making it suitable for general design outputs and engineering design prototyping. There are a variety of colors can satisfy the different needs of applications.

IDENTIFICATION		
Product Name	ProBasic	
Resin Model	A2	
Application	Hobby model Prototyping	
For use with	<input type="checkbox"/> CastPro100 xP <input type="checkbox"/> PartPro100 xP <input type="checkbox"/> PartPro120 xP <input checked="" type="checkbox"/> PartPro150 xP	
Layer Height	<input checked="" type="checkbox"/> 200 <input checked="" type="checkbox"/> 100 <input checked="" type="checkbox"/> 50 <input type="checkbox"/> 25 micron	
SPECIFICATIONS (LIQUID MATERIAL)		
Color	Clear, Black, White	
Package Available	1kg (2 x 500g bottle per package)	
Viscosity @25°C	Clear ,White: 520±100	
	Black : 480±100	
Specific gravity @25°C	1.1-1.2 g/cm ³	
MECHANICAL PROPERTIES		
Hardness (ASTMD2240)	Shore D 80±10	
Tensile Strength (MPa)	30 ~ 50	
Young's Modulus (MPa)	Clear: 1300 ~ 1800 Black, White: 1100 ~ 1600	
Elongation (%)	2 ~ 6	
Flexural Strength (MPa)	Clear: 60 ~ 80 Black, White: 50 ~ 70	
Flexural Modulus (MPa)	Clear: 1700 ~ 2200 Black, White: 1500 ~ 2000	
Notched Izod Impact (J/m)	15 ~ 25	
HDT (°C @0.45MPa)	--	
OTHERS		
Clean Settings	Clean liquid	75% or 95% alcohol
	Limit Clean (soaking) time	< 10 mins
Post-curing Settings (Depend on Post-curing machine)	EeezeCure180: preset 2 (Power Level 100%)	10 mins
	MultiCure180: preset 4 (Active Light fully on, Power Level 100%)	7 mins
Storage temperature	10~32°C (50 -90 °F)	
Shipping temperature	< 60°C	
Operating temperature	◆ Refer to printer operating temperature	



ProPreciseSL Resin

It is highly rigid and resists deformation, making it suitable for engineering prototypes with thin features.

IDENTIFICATION		
Product Name	ProPreciseSL	
Resin Model	D5	
Application	- Engineering prototypes with thin features. - High stiff functional prototypes	
For use with	<input type="checkbox"/> CastPro100 xP <input type="checkbox"/> PartPro100 xP <input type="checkbox"/> PartPro120 xP <input checked="" type="checkbox"/> PartPro150 xP	
Layer Height	<input checked="" type="checkbox"/> 200 <input checked="" type="checkbox"/> 100 <input type="checkbox"/> 50 <input type="checkbox"/> 25 micron	
SPECIFICATIONS (LIQUID MATERIAL)		
Color	Clear	
Package Available	1kg (2 x 500g bottle per package)	
Viscosity @25°C	270±70	
Specific gravity @25°C	1.1-1.2 g/cm ³	
MECHANICAL PROPERTIES		
Hardness (ASTMD2240)	Shore D 80±10	
Tensile Strength (MPa)	50 ~ 70	
Young's Modulus (MPa)	1800 ~ 2300	
Elongation (%)	4 ~ 8	
Flexural Strength (MPa)	80 ~ 100	
Flexural Modulus (MPa)	2100 ~ 2600	
Notched Izod Impact (J/m)	20 ~ 30	
HDT (°C @0.45MPa)	--	
OTHERS		
Clean Settings	Clean liquid	75% or 95% alcohol
	Limit Clean (soaking) time	< 10 mins
Post-curing Settings (Depend on Post-curing machine)	EeezeCure180: preset 2	10 mins
	MultiCure180: preset 4 (Active Light fully on, Power Level 100%)	7 mins
Storage temperature	10~32°C (50 -90 °F)	
Shipping temperature	< 60°C	
Operating temperature	◆ Refer to printer operating temperature	



ProPoly Resin

The resin properties include high elongation and impact resistance, with durability features used in many applications. It is also particularly valuable for making living hinges. Its powerful features make it ideal for prototyping and assembly.

IDENTIFICATION		
Product Name	ProPoly	
Resin Model	D6	
Application	- High elongation prototypes, - High impact prototypes	
For use with	<input type="checkbox"/> CastPro100 xP <input type="checkbox"/> PartPro100 xP <input type="checkbox"/> PartPro120 xP <input checked="" type="checkbox"/> PartPro150 xP	
Layer Height	<input checked="" type="checkbox"/> 200 <input checked="" type="checkbox"/> 100 <input type="checkbox"/> 50 <input type="checkbox"/> 25 micron	
SPECIFICATIONS (LIQUID MATERIAL)		
Color	Clear	
Package Available	1kg (2 x 500g bottle per package)	
Viscosity @25°C	1400 ± 400	
Specific gravity @25°C	-	
MECHANICAL PROPERTIES		
Hardness (ASTMD2240)	Shore D 75±10	
Tensile Strength (MPa)	25 ~ 40	
Young's Modulus (MPa)	1000 ~ 1500	
Elongation (%)	40 ~ 60	
Flexural Strength (MPa)	25 ~ 40	
Flexural Modulus (MPa)	600 ~ 1000	
Notched Izod Impact (J/m)	50 ~ 70	
HDT (°C @0.45MPa)	--	
OTHERS		
Clean Settings	Clean liquid	75% or 95% alcohol
	Limit Clean (soaking) time	< 10 mins
Post-curing Settings (Depend on Post-curing machine)	EeezeCure180: preset 2	30 mins
	MultiCure180: preset 4 (Active Light fully on, Power Level 100%)	20 mins
Storage temperature	10~32°C (50 -90 °F)	
Shipping temperature	< 60°C	
Operating temperature	◆ Refer to printer operating temperature	



ProTempSL Resin

The resin could resist in high temperature and suitable for molds. Heat deflection temperature (HDT) over 250 °C @ 0.45 Mpa. Precise prototypes with high temperature resistance.

IDENTIFICATION		
Product Name	ProTempSL	
Resin Model	K3	
Application	- Heat resistant - Functional prototypes	
For use with	<input type="checkbox"/> CastPro100 xP <input type="checkbox"/> PartPro100 xP <input type="checkbox"/> PartPro120 xP <input checked="" type="checkbox"/> PartPro150 xP	
Layer Height	<input checked="" type="checkbox"/> 200 <input checked="" type="checkbox"/> 100 <input type="checkbox"/> 50 <input type="checkbox"/> 25 micron	
SPECIFICATIONS (LIQUID MATERIAL)		
Color	Clear	
Package Available	1kg (2 x 500g bottle per package)	
Viscosity @25°C	1000 ± 200	
Specific gravity @25°C	-	
MECHANICAL PROPERTIES		
Hardness (ASTMD2240)	Shore D 85±10	
Tensile Strength (MPa)	50 ~ 70	
Young's Modulus (MPa)	2300 ~ 2800	
Elongation (%)	0.5 ~ 3	
Flexural Strength (MPa)	90 ~ 110	
Flexural Modulus (MPa)	2800 ~ 3300	
Notched Izod Impact (J/m)	10 ~ 20	
HDT (°C @0.45MPa)	>250	
OTHERS		
Clean Settings	Clean liquid	75% or 95% alcohol
	Limit Clean (soaking) time	< 10 mins
Post-curing Settings (Depend on Post-curing machine)	EeezeCure180: preset 2	20 minutes on each side of the object
	MultiCure180: preset 4 (Active Light fully on, Power Level 100%)	20 minutes on each side of the object
Storage temperature	10~32°C (50 -90 °F)	
Shipping temperature	< 60°C	
Operating temperature	◆ Refer to printer operating temperature	