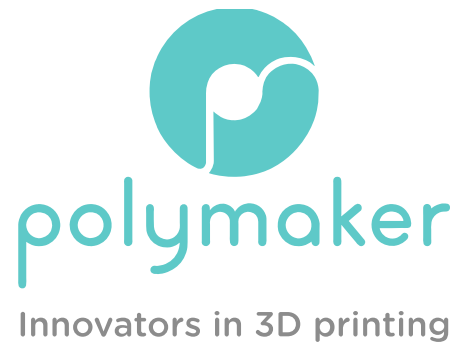




Technical Data Sheet

PolyDissolve™ S1

www.polymaker.com

V5.4



PolyDissolve™ S1

PolyDissolve™ S1 is a water dissolvable support for PLA, TPU, PVB and Nylon based filaments from our portfolio. It is specifically engineered to have a perfect interface with these materials while also displaying good solubility.

PHYSICAL PROPERTIES

Property	Testing Method	Typical Value
Density	ISO1183, GB/T1033	1.13 g/cm ³ at 23 °C
Melt index	220°C, 2.16kg	7.8 g/10min
Light transmission	N/A	N/A
Flame retardancy	N/A	N/A

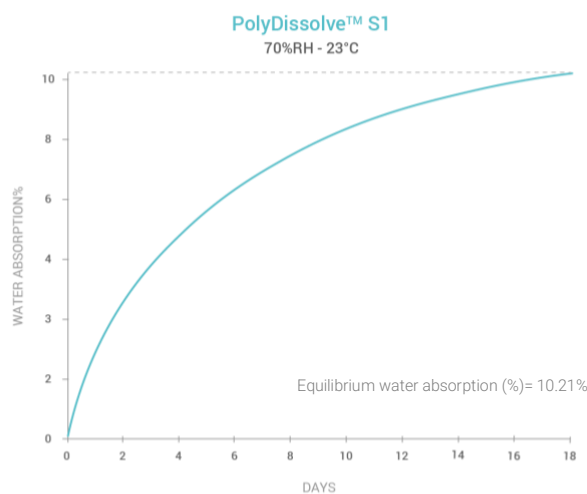
CHEMICAL RESISTANCE DATA

Property	Typical Value
Effect of weak acids	Poor
Effect of strong acids	Poor
Effect of weak alkalis	Poor
Effect of strong alkalis	Poor
Effect of oils and grease	Not Available

Note:

- Good: Material may get minor attack after long periods of storage with chemical at ambient temperature
- Fair: Material can be used for short time contact with chemical at ambient temperature
- Poor: Material becomes unstable on contact with chemical at ambient temperature

MOISTURE ABSORPTION CURVE



Material Compatibility

Material	Adhesion with PolyDissolve™ S1
PLA based material from Polymaker's portfolio	++
PETG based material from Polymaker's portfolio	+
ABS based material from Polymaker's portfolio	--
PC based material from Polymaker's portfolio	--
PVB based material from Polymaker's portfolio	++
TPU based material from Polymaker's portfolio	++
Nylon based material from Polymaker's portfolio	++

Note:

- ++ support the model very well
- + generally, support the model depending on its geometry
- generally, doesn't support the model depending on its geometry
- do not support the model

RECOMMENDED PRINTING CONDITIONS

Parameter	
Nozzle temperature	215 – 225 (°C)
Build surface treatment	PC and Texture PEI (Glue when needed)
Build plate temperature	25 - 60 (°C)
Cooling fan	ON
Printing speed	50 – 150 (mm/s)
Retraction distance	1 - 3 (mm)
Retraction speed	20 - 40 (mm/s)
Closure Chamber	No Needed
Recommended support material	-
Drying setting	80°C for 12h

* Based on 0.4 mm nozzle. Printing conditions may vary with different nozzle diameters

Note:

- It is highly recommended to use the PolyBox™ when printing with PolyDissolve™ S1 and to store it in the resealable bag.

DISCLAIMER:

The typical values presented in this data sheet are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End- use performance of printed parts depends not only on materials, but also on part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

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