polymaker

Innovators in 3D printing

Technical Data Sheet

PolyDissolve™ S1

www.polymaker.com

V5.1

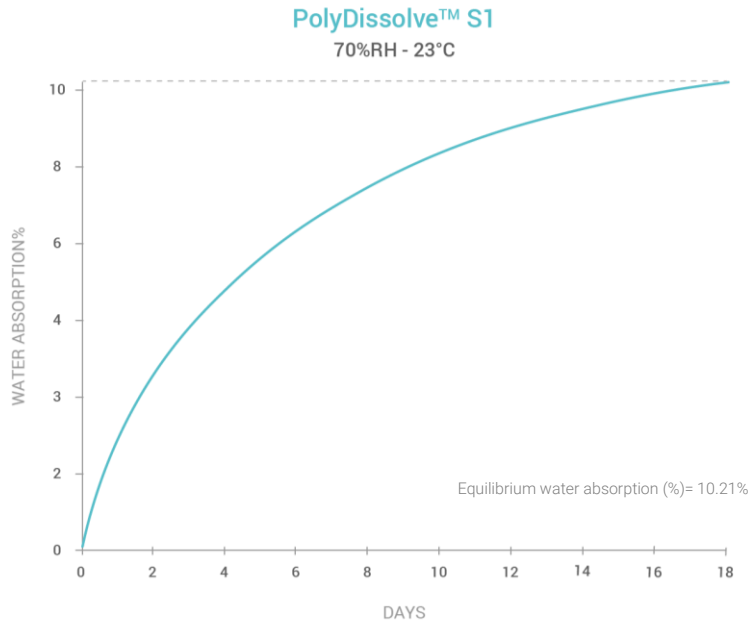
PolyDissolve™ S1

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

MOISTURE ABSORTION 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	++

++ 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

* Based on 0.4 mm nozzle and Simplify 3D v.4.0. Printing conditions may vary with different nozzle diameters

Parameter	
Nozzle temperature	215 – 225 (℃)
Build surface material	BuildTak®, Glass, Blue Tape
Build surface treatment	Glue
Build plate temperature	25 - 60 (˚C)
Cooling fan	ON
Printing speed	30-40 (mm/s)
Raft separation distance	0 (mm)
Retraction distance	1 (mm)
Retraction speed	20 (mm/s)
Environmental temperature	Room temperature

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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