PolyDissolve™ S2

PolyDissolve™ S2 is a dissolvable support for PC, ABS and ASA 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	ASTM D792 (ISO 1183, GB/T 1033)	1.1 (g/cm3 at 21.5°C)
Melt index	250 °C, 2.16 kg	4.4 (g/10 min)
Glass transition temperature	DSC, 10°C/min	93 (°C)
Vicat Softening temperature	ASTM D1525 (ISO 306 GB/T 1633)	113 (°C)

Tested with 3D printed specimen of 100% infill

Material Compatibility

Material	Adhesion with PolyDissolve™ S2
PLA based material from Polymaker's portfolio	N/A
PETG based material from Polymaker's portfolio	N/A
ABS/ASA based material from Polymaker's portfolio	++
PC based material from Polymaker's portfolio	++
PVB based material from Polymaker's portfolio	N/A
TPU based material from Polymaker's portfolio	N/A
PA12 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

Warning: PolyDissolve S2 needs to be dissolved in 75°C lye, it isn't recommended to work with PVA and PLA based filaments

Recommended printing conditions

Parameter	
Nozzle temperature	230 - 250 (°C)
Build Surface material	BuildTak®, Glass
Build surface treatment	Glue
Build plate temperature	90 - 110 (°C)
Cooling fan	OFF
Printing speed	30-40 (mm/s)
Raft separation distance	0 (mm)
Retraction distance	1 (mm)
Retraction speed	20 (mm/s)
Recommended environmental temperature	Room temperature

Based on 0.4 mm nozzle and Simplify 3D v.4.1. Printing conditions may vary with different nozzle diameters

PolyDissolve™ S2 can be used without moisture-proof treatment.
It is highly recommended to use the PolyBox™ when printing with PolyDissolve™ S2 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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