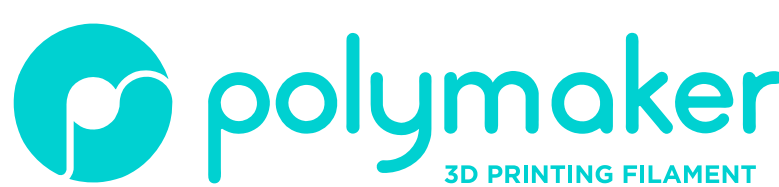


# TECHNICAL DATA SHEET



V5.5



## PolySupport™ for PA12

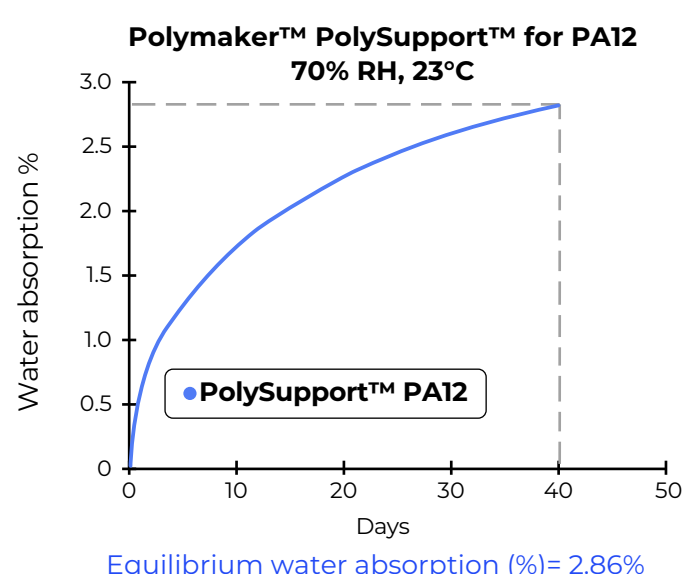
PolySupport™ for PA12 is a break away support for Polymaker PA12 based filaments, such as PolyMide™ PA12-CF. It has a perfect interface with long-chain Polyamide, strong enough to support it and easily removable by hand.

[WWW.POLYMAKER.COM](http://WWW.POLYMAKER.COM)

### PHYSICAL PROPERTIES

PROPERTY	TESTING METHOD	TYPICAL VALUE
Density	ISO1183, GB/T 1033	1.29 g/cm <sup>3</sup> at 23°C
Melt index	260°C, 5kg	12 g/10min
Light transmission	N/A	N/A
Flame retardancy	N/A	N/A

### MOISTURE ABSORPTION CURVE



### THERMAL PROPERTIES

PROPERTY	TESTING METHOD	TYPICAL VALUE
Glass transition temp.	DSC, 10°C/min	N/A
Melting temp.	DSC, 10°C/min	N/A
Crystallization temp.	DSC, 10°C/min	N/A
Decomposition temp.	TGA, 20°C/min	371°C
Vicat softening temp.	ISO 306, GB/T 1633	171°C
Heat deflection temp.	ISO 75 1.8MPa	53°C
Heat deflection temp.	ISO 75 0.45MPa	43°C

### MATERIAL COMPATIBILITY

MATERIAL	ADHESION WITH POLYSUPPORT™
Long-chain nylon based material from Polymaker's portfolio	Supports the model very well

### CHEMICAL RESISTANCE DATA

PROPERTY	TYPICAL VALUE
Effect of weak acids	Good
Effect of strong acids	Poor
Effect of weak alkalis	Fair
Effect of strong alkalis	Poor
Effect of oils and grease	Good

**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 chemicals at ambient temperature

**Poor:**  
Material becomes unstable on contact with chemical at ambient temperature

### RECOMMENDED PRINTING CONDITIONS

Nozzle temperature	270-300°C
Build plate temperature	50-80°C
Build surface treatment	PC and Textured PEI
Cooling fan	OFF
Closure chamber	Needed (ambient temp.)

Printing speed	50-150mm/s
Drying temp. and time	100°C/8H
Retraction distance	1-3 (mm)
Retraction speed	20-40 (mm/s)

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

**NOTE:**  
- Abrasion of the brass nozzle happens when printing PolySupport™ for PA12. Normally, the life of a brass nozzle would be approximately 9h. A wear-resistance nozzle, such as hardened steel and ruby nozzle, is highly recommended to be used with PolySupport™ for PA12.

- PolySupport™ for PA12 is sensitive to moisture and should always be stored and used under dry conditions (relative humidity below 20%).



PolyBox™ or PolyDryer™ Box

**NOTE**  
It is highly recommended to use the PolyBox™ or PolyDryer™ Box when printing or storing.

\*Based on testing with Polymaker™ PolySupport™ for PA12 (SKU: PA06013)

### 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. Each user is responsible for determining the safety, lawfulness, technical suitability, and disposal/recycling practices of Polymaker™ materials for the intended application. Polymaker™ makes no warranty of any kind, unless announced separately, to the fitness for any use or application. Polymaker™ shall not be made liable for any damage, injury or loss induced from the use of Polymaker™ materials in any application.