



HIGHEST RATED FILAMENT ON AMAZON
60-DAY MONEY BACK GUARANTEE

FAST, FREE MAINLAND DELIVERY OVER £65!
HEAVY USER? SUBSCRIBE AND SAVE!

Description:

Excellent weatherability, general purpose durable alternative to ABS. Enhanced UV resistance.
Use in locations where ABS (and other UV-sensitive materials) may become degraded due to exposure to sunlight.

Applications:

Casings, outside fairings, covers, satellite antenna covers, toys, school weather-station projects, etc.
Anything to be used in direct sunlight and continually exposed to the weather.

Recommended Print Settings:

Printing Temps 1.75mm	230-245°C
Printing Temps 2.85mm	235-250°C
Heated Bed Temp	90-100°C
Cooling Fans	5-10% (more if needed on thin or detailed objects)
Ideal Build Volume	Doors and covers may be need to be slightly open. No draughts!
Extrusion Multiplier	x1.0 (100%)
Retraction (direct drive)	Try 1.2mm as a starting point at 20-30mm/s
Retraction (bowden feed)	Varies per printer, as above, but try 3mm as a starting point
Print Speed Advisory	May need to print slower on small or finely detailed objects
Print Surface Advisory	If you have first-layer adhesion issues, try heating the bed up to a maximum 110°C for the first layer *ONLY*. Then reduce below 100°C for subsequent layers
Print Layer Advisory	None

General Advice:

Start at the low end of the temperature range and increase if needed for faster print speeds.

Printing thinner layers reduces warping stresses.

Consider using brims on objects as an aid to improving bed adhesion.

Material Properties:

Physical Properties ⁽¹⁾	Value
Density	1.06g/cm ³
Glass Transition Temperature	~105°C
Melting Point	145-160°C
Heat Deflection Temperature ⁽²⁾	96°C
Heat Deflection Temperature ⁽³⁾	87°C
Vicat Softening Point	97°C
Tensile Strength, Yield	45.1 MPa / 6541 psi

(1) NOT to be construed as specifications

(2) @0.5MPa

(3) @1.8MPa

Other Info:

A versatile UV-resistant replacement for ABS.

Good impact strength.

Better resistance to environmental stress-cracking than ABS.

Is compatible with most printers fitted with a working heated print bed (90-100°C).

Can be polished with the Acetone Vapour Smoothing technique (just like ABS).

Can also be sanded and smoothed to give an outstanding finish.

Readily accepts most kinds of paints.

A superb material for general use in school – especially outside science projects!

May be annealed to improve strength and thermal properties.

A full reel of damp filament can be dried at 70-80°C for up to 8 hours in a temperature-controlled circulating air dryer (It is a good idea to put any silica gel bags in the dryer along with your filament so that they will get recharged along with the drying filament).

Print Surface Materials:

Adheres well to most bed surfaces including PEI, BuildTak, blue painters' tape, etc.

Bed surfaces must be kept clean with the appropriate cleaning fluid/solvent in order to obtain reliable adhesion.

To reduce warping, the use of a heated bed is strongly advised.

Other methods of securing a print include 3DLAC, Extra-Hold vinyl-based hairspray, glue sticks, ABS slurry, and so on.

General Safety:

As with all filaments, only print in an area with good ventilation, away from pets, and avoid breathing in any fumes or particles that may be released during the printing process.

Always wear eye protection around 3D printers and their materials, especially while in use.

It is always good practice to wear facemasks as a precautionary measure when 3D printing.

Keep away from food, and wash hands after use.

Do not touch the molten plastic - It will cause severe burns if it comes into contact with bare skin.

If bodily contact does occur, irrigate the affected area with copious amounts of cold water.

Do not attempt to remove the hardened plastic. Seek medical attention.

Please note that the information given in this Technical Data Sheet, including, but not limited to, data, statements and typical values, are given in good faith. They are provided as an aid for material selection purposes only. The values and information presented on this sheet are typical values and should not be interpreted as being absolute or precise specifications. Colour pigments may induce variance in printing settings between filament colours.