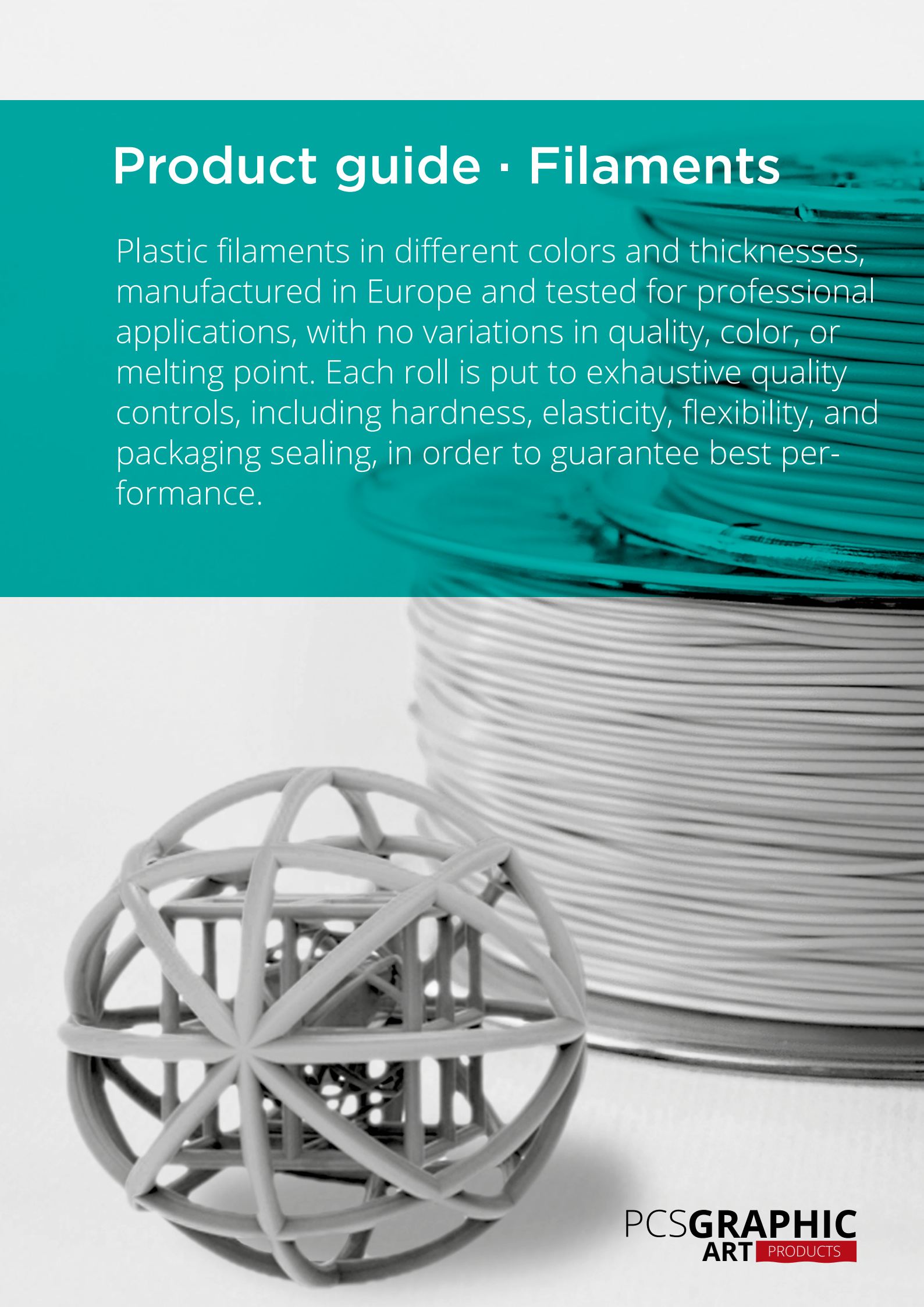
Product guide · Filaments

Plastic filaments in different colors and thicknesses, manufactured in Europe and tested for professional applications, with no variations in quality, color, or melting point. Each roll is put to exhaustive quality controls, including hardness, elasticity, flexibility, and packaging sealing, in order to guarantee best performance.



PCSGRAPHIC ART PRODUCTS

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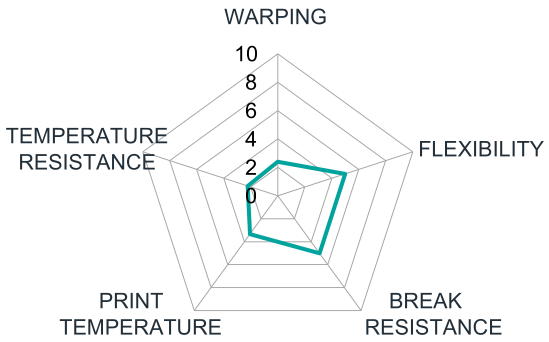
DURA3D filament

PLA

Biodegradable, without heating bed. With a printing temperature at 210ºC, it offers no warping and a high printing resolution. Glossy when printed at 225ºC, and matte when printed at 230ºC. Prints much faster than other materials and is available in many colors. This 100% stabilized PLA delivers a very low diameter variability.

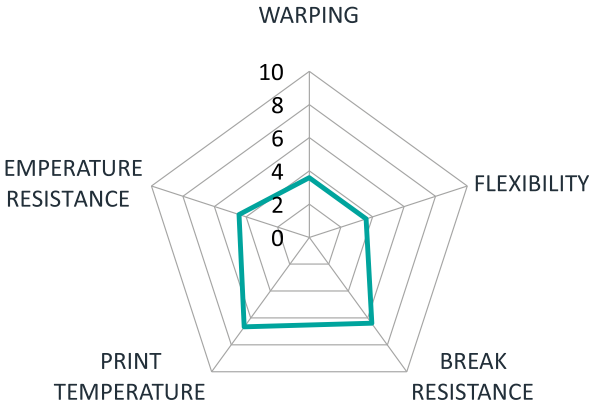
- No warping
- Flexibility medium
- Breaking resistance (IZOD) medium
- Printing temperature +-210ºC
- Temperature resistance 75ºC
- Heated bed 0-60ºC
- Density 1,24 g/cm3



ABS

A tough, hard, rigid material, resistant to chemical agents and abrasion. Especially additivated in order to reduce warping and cracking. As an acetone-soluble material, an acetone vapour bath provides a glossy and soft finish to the printed item. Great resistance, good mechanical properties, reduced warping and wide colour range. Prints at +-240ºC and suitable for a reduced heated bed, up to 60ºC. Excellent dimensional stability and printing regularity.

- Warping low
- Flexibility low
- Break resistance (IZOD) high
- Printing temperature +-240ºC
- Temperature resistance 105ºC
- Heated bed 80-100ºC
- Density 10,4 g/cm3



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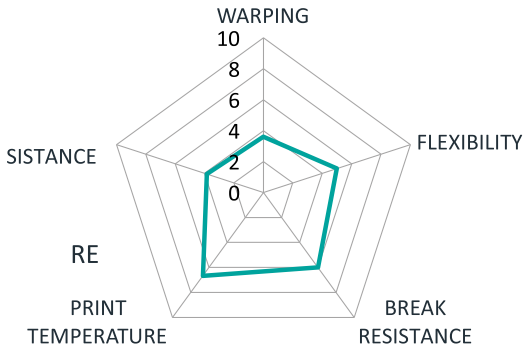
DURA3D filament

ABS Fireproof

Unlike ABS fire retardant – widely available on the market – ABS Fireproof meets all regulations concerning flammability, and has achieved V-1 category for 1.5 mm thickness, and V-0 for 2.1 mm. Able to extinguish flames in less than 10 seconds without dripping plastic. Ideal for protecting electrical circuits. Low warping, medium flexibility and high break resistance.

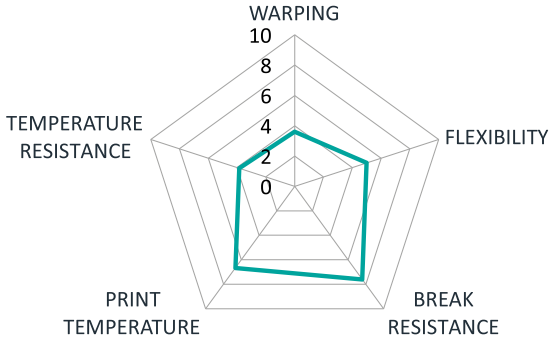
- Warping low
- Flexibility medium
- Breaking resistance (Charpy) high
- Printing temperature +-240ºC
- Temperature resistance 93ºC
- Heated bed 80-100ºC
- Density 1,17 g/cm3



ABS H.I.

Designed especially for the industrial sector and printing items that need great mechanical features. Printing temperature +-240ºC and heated bed 80-100ºC. Reduced warping. Soluble in acetone, just like traditional ABS, but 40% more resistant.

- Warping low
- Flexibility medium
- Breaking resistance (IZOD) very high
- Printing temperature +-240ºC
- Temperature resistance 96ºC
- Heated bed 80-100ºC
- Density 1,04 g/cm3



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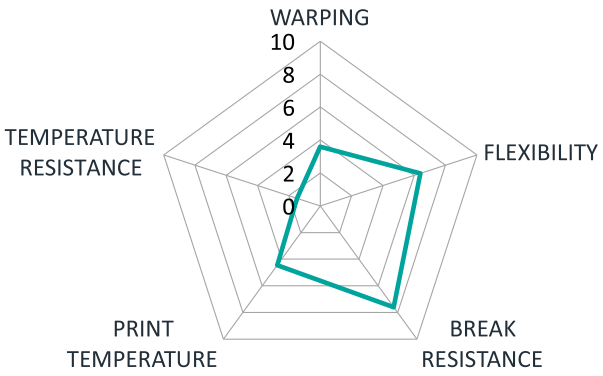
DURA3D filament

PP

Versatile, transparent, lightweight material with good organoleptic properties. Great mechanical and chemical resistance, perfect for industrial applications, among others. Printing temperature +-220ºC and heated bed between 30-65ºC. Reduced warping, great impact resistance and low density (0,90 g/cm3). High resistance to flexion and high printing resolution.

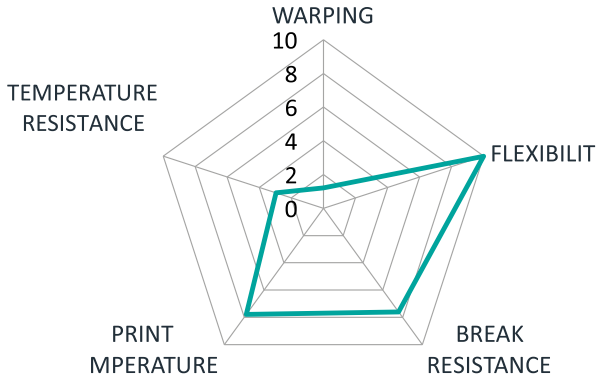
- Warping low
- Flexibility high
- Breaking resistance (IZOD) very high
- Printing temperature +-220ºC
- Temperature resistance 62ºC
- Heated bed 30-60ºC
- Density 0,90 g/cm3



FLEX

Thermoplastic elastomer additivated in order to achieve complete flexibility. The final product is elastic and offers a high resolution.

- Warping low
- Flexibility complete
- Breaking resistance (IZOD) very high
- Printing temperature +-240ºC
- Temperature resistance 85ºC
- Heated bed 0-60ºC
- Density 1,22 g/cm3



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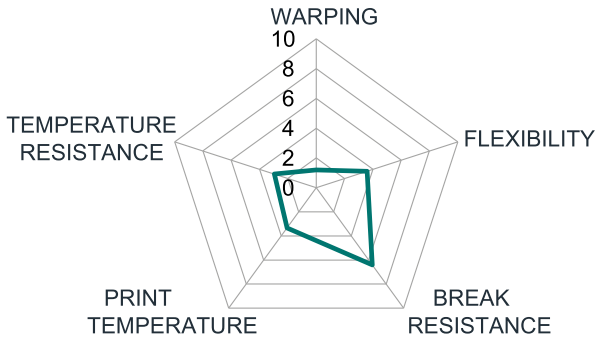
DURA3D filament

PLA 3D850

Made of Nature Works' resine. Crystallizes fast and prints 50% faster than other materials. Offers a great resolution and complexity. Great resistance – similar to ABS High Impact – with an increased impact, flexion and traction properties. Low thermal contraction, without heated bed. Biodegradable, without warping.

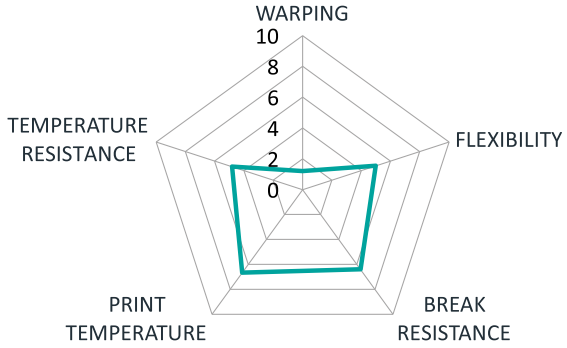
- Warping low
- Flexibility low
- Breaking resistance high
- Printing temperature +-210ºC
- Temperature resistance 85ºC
- Heated bed 0-60ºC
- Density 1,24 g/cm3



PETG

Mechanical properties similar to ABS but with PLA's printing ease. High resistance to chemical agents and high resolution within a wide range of temperatures. Very low warping, even without heated bed, thanks to PETG's low thermal contraction

- Warping low
- Flexibility medium
- Breaking resistance (IZOD) high
- Printing temperature +-240ºC
- Temperature resistance 110ºC
- Heated bed 0-60ºC
- Density 1,27 g/cm3



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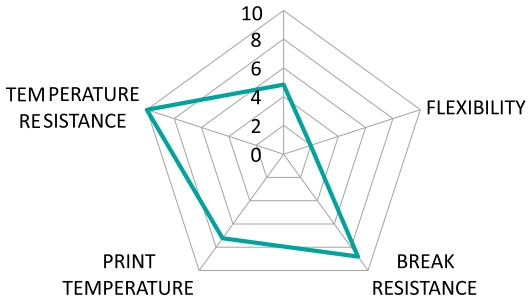
DURA3D filament

Nylon

Nylon (PA6) modified in order to resist higher impacts while keeping a high rigidity. Ideal for industrial applications due to its mechanical features and thermal resistance.

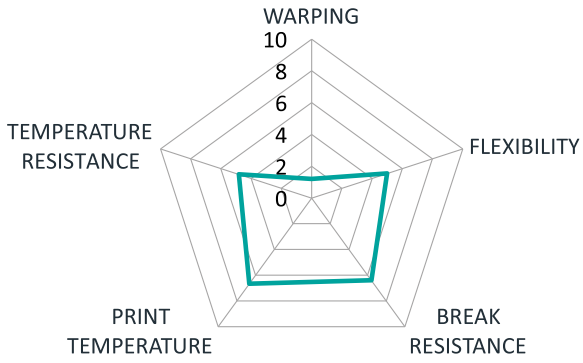
- Warping medium
- Flexibility very low
- Breaking resistance (Charpy) very high
- Printing temperature +-250ºC
- Temperature resistance 210ºC
- Heated bed 80-100ºC
- Density 1,52 g/cm3



E.P.

Very easy to print, without heated bed or warping, provides great resolutions. It can be sanded and painted. More rigid than PLA

- Warping very low
- Flexibility low
- Breaking resistance (IZOD) low
- Temperature resistance 75ºC
- Heated bed 0-60ºC
- Density 1,10 g/cm3



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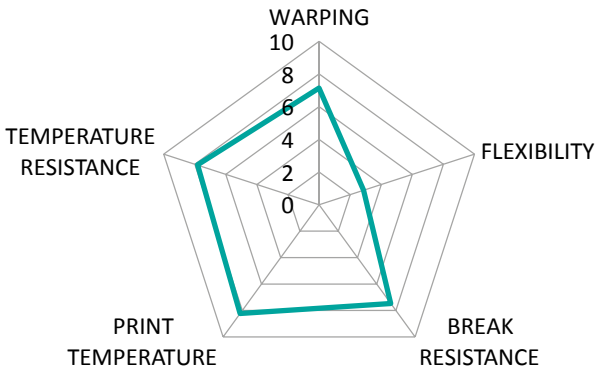
DURA3D filament

PC

Polycarbonate highly resistant to impacts and temperature. Also resistant to environmental agents. Very good insulator.

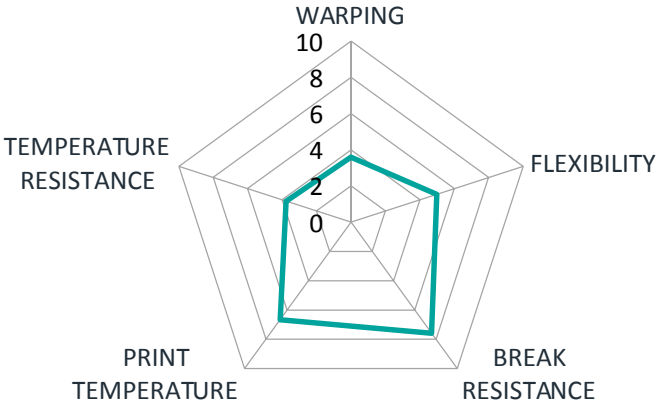
- Warping low
- Flexibility low
- Breaking resistance (Charpy) very high
- Printing temperature +-260ºC
- Temperature resistance 150ºC
- Heated bed 90-120ºC
- Density 1.2 g/cm3



HIPS

Polystyrene resistant to high impacts with very good mechanical and insulating properties in the shape of an exceptionally regular filament. Similar to ABS, it can be sanded and painted with acrylic paintings. Also solvable in D-limonene. Ideal for high resolution and high resistance items.

- Warping low
- Flexibility medium
- Breaking resistance (IZOD) high
- Printing temperature +-240ºC
- Temperature resistance 96ºC
- Heated bed 80-100ºC
- Density 1.05 g/cm3



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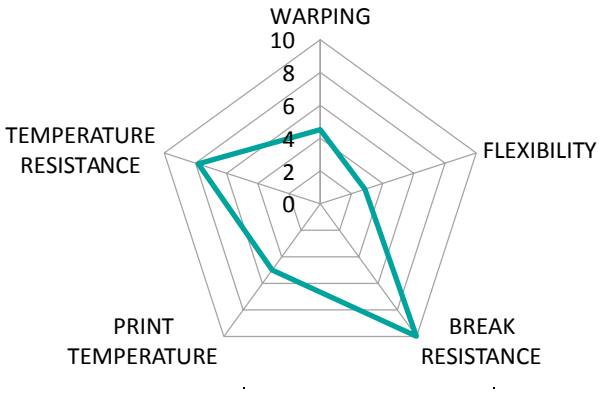
DURA3D filament

POM

Polyacetal with a wide temperature spectrum (from -40ºC to 160ºC). Resistant to creeping. It absorbs very little water, which brings this material a great dimensional stability and precision over time. Low coefficient of friction (COF) and resistance to erosion. Ideal for industrial applications.

- Warping medium
- Flexibility low
- Breaking resistance (Charpy) extremely high
- Printing temperature +-240ºC
- Temperature resistance 160ºC
- Heated bed 90-120ºC
- Density 1.41 g/cm3



Support

HIPS filament created for being used as supporting material, with no thermal contraction and solvable in limonene. Suitable for a wide range of materials

- Warping low
- Flexibility medium
- Printing temperature +-230ºC
- Heated bed 50-100ºC
- Density 1.05 g/cm3

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