

TECHNICAL DATA SHEET

BIGREP ASA

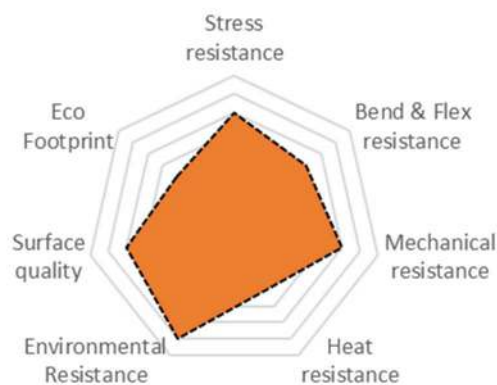
DESCRIPTION

BigRep ASA is an engineering-grade UV-resistant filament for high-strength and environmentally exposed applications. Designed for industrial and end-use parts, ASA is strong material with high mechanical resistance, low shrinkage and superior layer adhesion. It is highly suited to applications in automotive, sporting goods, white goods and consumer appliances.

KEY FEATURES

- High impact strength
- High weather and UV resistance
- Minimal shrinkage
- High heat resistance
- Easy post-processing

PERFORMANCE



STRESS

High stress suitable with ABS like performance

ENVIRONMENTAL RESISTANCE

UV resistant & weatherproof, good chemical resistance

BEND & FLEX

Medium resistance to bend and flex

ECO FOOTPRINT

Recycling and repairing possible

HEAT

Suitable for temperatures higher than 80°C

SURFACE

Matt surface, easy post-processing

MECHANICAL RESISTANCE

Good mechanical and impact resistance

PROCESSING

Layer adhesion ★ ★ ★ ☆ ☆

Tendency to warp. Use extra adhesives and/or print slow for first layers

Extrusion rate ★ ★ ★ ☆ ☆

Normal build rates according to extruder capabilities; ca. 40mm/s

Geometries ★ ★ ★ ★ ☆

Fine and complex designs possible, include extra support when printing >50° angles

Ease of printing ★ ★ ★ ★ ☆

Printing in open frame is possible for the experience user.

Post-processing ★ ★ ★ ★ ★

Excellent post-processing with all common technologies. Keep processing temperature in mind when milling, drilling, etc.

Join parts using MEK, 2K adhesives or super glue

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PROPERTIES

Density	1.08 g/cm ³
Flexural Modulus (ISO 178)	1250 MPa
Tensile Strength (ISO 527)	40 MPa
Tensile Modulus (ATM D638)	1900 MPa
Impact Strength, notched (ISO 179)	30 kJ/m ²
HDT / B (ISO 75)	86 °C

REQUIREMENTS & RECOMMENDATIONS

Nozzle temp.: ca. 215°C

Heatbed temp.: 40-80°C

Chamber temp.: n.a.

Adhesion: Suitable on BigRep Kapton print bed foil. **Additional adhesion** using glue, e.g. from Magigoo

Support structures: **Break-away** support works well for ABS. For complex geometries a soluble material is supportive too.

Health & Safety: BigRep ASA is safe to print when using the recommended temperature settings listed above. To ensure a comfortable and healthy working environment, we recommend 3D printing in a well-ventilated area.

Storage & drying: Store at room temperature in a dry and dark place
it is recommended to use BigRep DryBOX for best material printability.

Shelf life: When stored and dried correctly, this material has a shelf life of min. 1 year

CERTIFICATION & ADDITIONAL INFORMATION

RoHS, REACH, FREE OF SILICONE, UV-RESISTANT

Compatibility: BigRep **STUDIO G2** and BigRep **PRO/ACE**

Suitable for: conventional FFF extruders

The data mentioned in this TDS, particularly the recommendations for application and use of products are based on our recent knowledge and experience. Due to the fact of having so many different materials involved and conditions of applications which are out of our influence, we strongly recommend doing sufficient tests in order to guarantee that products are suitable for the intended process and applications. Except for wilful acts any liability based on such recommendations or any verbal advice is hereby expressly excluded.