

# TECHNICAL DATA SHEET

## BIGREP ASA

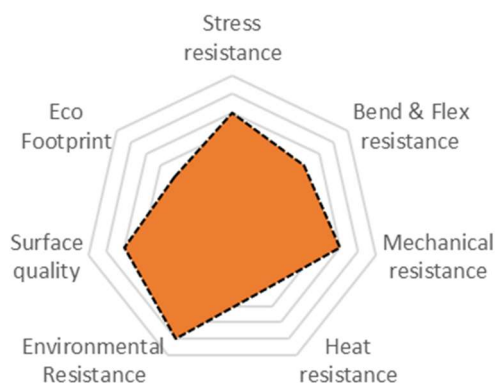
### DESCRIPTION

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

#### Ease of printing



Printing in open frame is possible for the experience user.

#### Extrusion rate



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

#### Post-processing



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

#### Geometries



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

Join parts using MEK, 2K adhesives or super glue

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### PROPERTIES

Density	1.08 g/cm <sup>3</sup>
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 <sup>2</sup>
HDT / B (ISO 75)	86 °C

### REQUIREMENTS & RECOMMENDATIONS

**Nozzle temp.:** ca. 215°C

**Heated temp.:** ca. 60°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.