PROVENTIA

3D PRINTS FOR NON-ROAD MACHINERY AND INDUSTRIAL APPLICATIONS

Carbon-fiber-reinforced (PBT-CF) 3D-printed parts offer a strong, lightweight, and durable solution for demanding applications without geometric constraints. The material withstands temperatures up to +180 °C.

These properties make the 3D-printed parts ideal for replacing several conventional materials and enable broad use, for example in non-road machinery applications.

MANUFACTURING AND POST-PROCESSING

Parts are produced using SLS (Selective Laser Sintering), where plastic powder is fused in thin layers with a highly precise laser to create a solid part. SLS delivers durable and accurate components. If required, the parts can be post-processed using smoothing technology to make them water- and gas-tight.

TECHNICAL SPECIFICATIONS

Temperature range	-30.....+180 °C
Part-density	> 1.20 g/cm^3 (at 20 °C)
Pressure range	1.80 MPa (at 95 °C), 0.45 MPa (at 180 °C)

BENEFITS

- Lightweight and durable; suitable for replacing plastic and metal parts
- Geometric design freedom; parts can be tailored to specific application
- No tooling costs; making it cost-effective and fast for series production
- Chemical resistance and dimensional stability for demanding operating environments
- The material resists embrittlement over time

WHY PROVENTIA

- Extensive experience in developing solutions for the non-road mobile machinery industry
- We deliver end-to-end solutions tailored to customer needs, from product development to the finished part
- Durability and flow simulations available as part of the design process when needed

CONTACT US

Interested in our products and services?
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