

The iglidur i6 material was designed for laser sintering and was especially developed for manufacturing worm wheels for the food & packaging industry. The tests in the igus test laboratory showed a longer service life than for conventionally milled gears - e.g. POM - This significantly increases flexibility in the design of components, because the laser sintering process eliminates the need for tooling and therefore special parts can be manufactured efficiently with no minimum order quantity. Furthermore, iglidur i6 is ideal for snap-on connections due to the higher elongation at break.



**Manufacturing method:**

Laser sintering (SLS)

**Application:**

Wear parts with sliding motion, e.g. for worm gears

**Article number.:**

I6 -PL-1000 (1kg) and I6 -PL-10000 (10kg)

**Package:**

Packaging unit from min. 1kg to 10kg bag

**Handling and storage:**

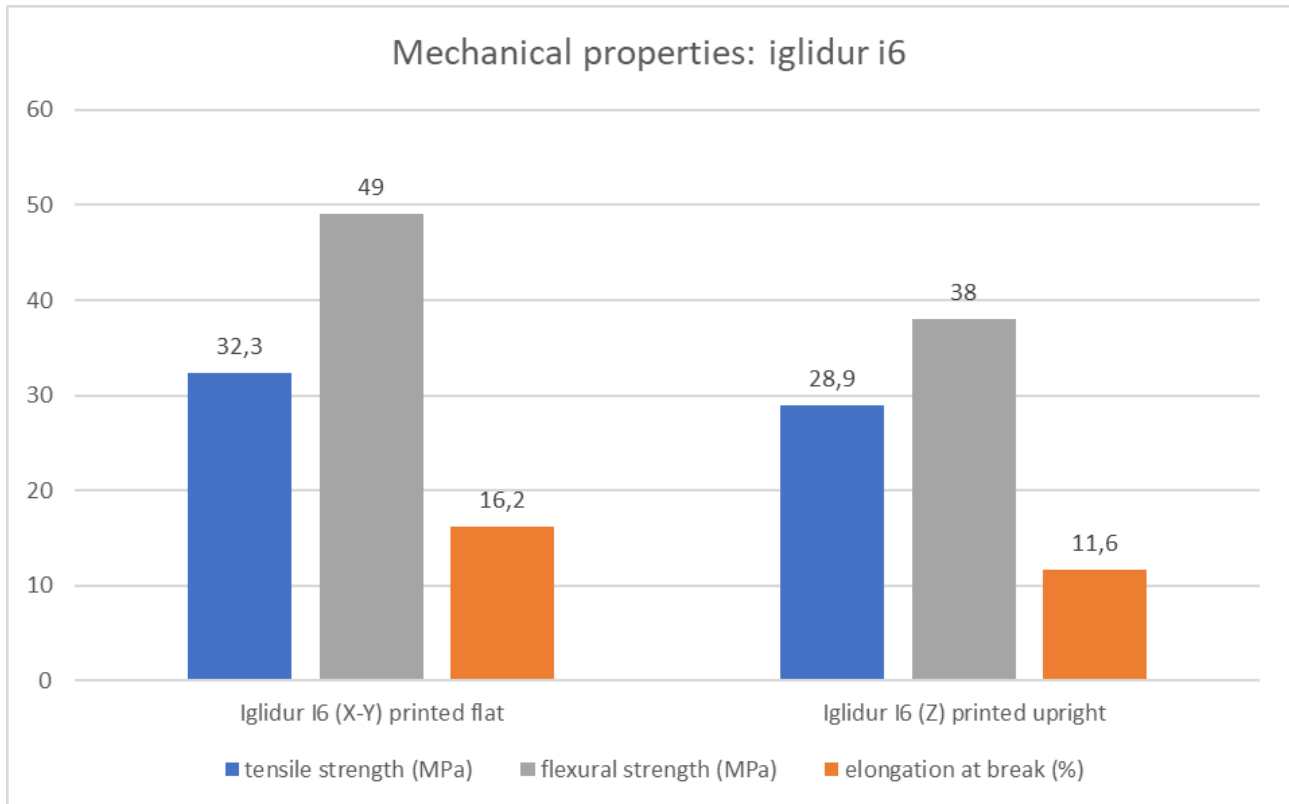
Store dry and cool; avoid absorbing humidity; Note MSDS

### FAQ iglidur I6-PL:

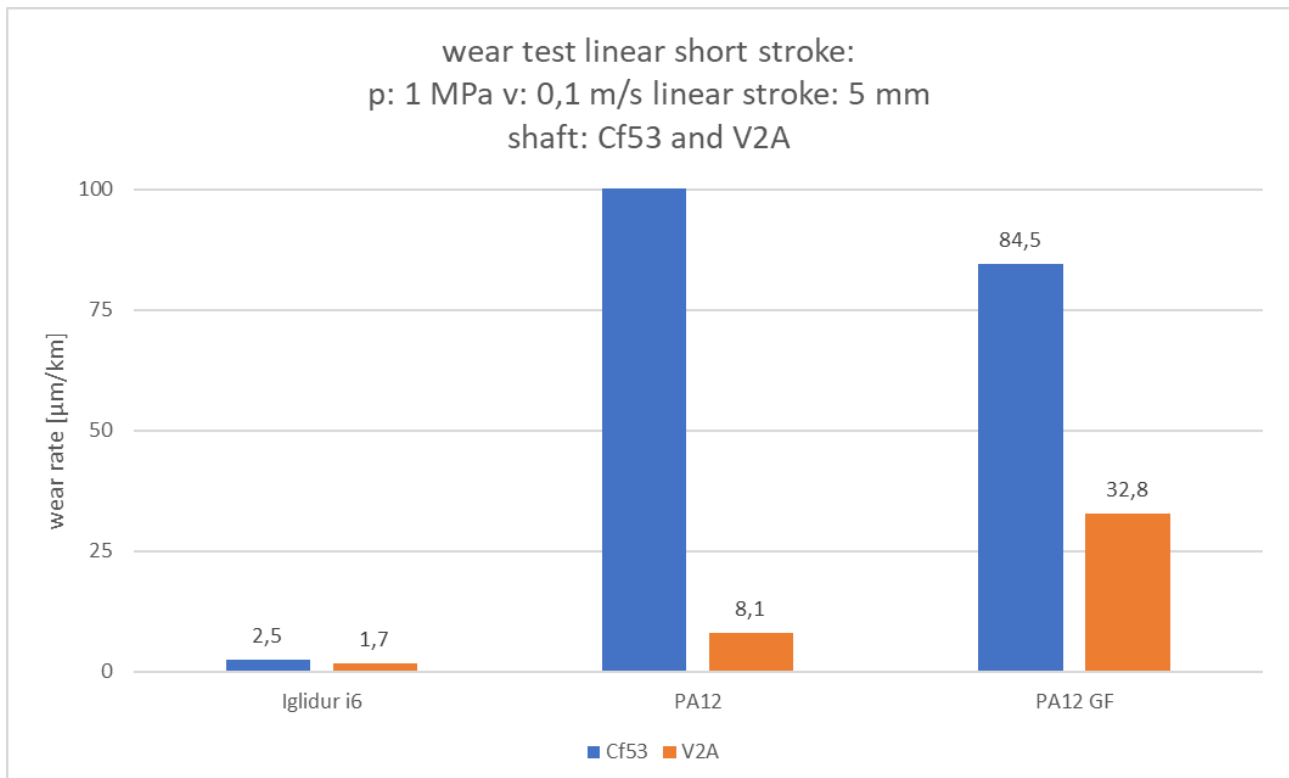
- What are the material strength parameter (flat/upright)?
  - See graph 1 below
- How are the wear properties and the friction coefficient?
  - See graph 2-4 below
- On which machines has the material been processed up to now?
  - Formiga P100 and P110 from EOS
- What is the refresh rate?
  - The recommended quota is 25% old material.
- Which production parameters are recommended?

production settings	Formiga P100/110 (EOS)
Process chamber temperature	168-172 °C
Removal chamber temperature	150-153 °C
Blade type	Standard as for PA2200
Warm up duration	0,8 – 1 °C / min. (2h)
Exposure parameters	Standard parameter as for PA2200
Layer height	100 µm
Minimum removal temperature	60 °C
Powder supply	-

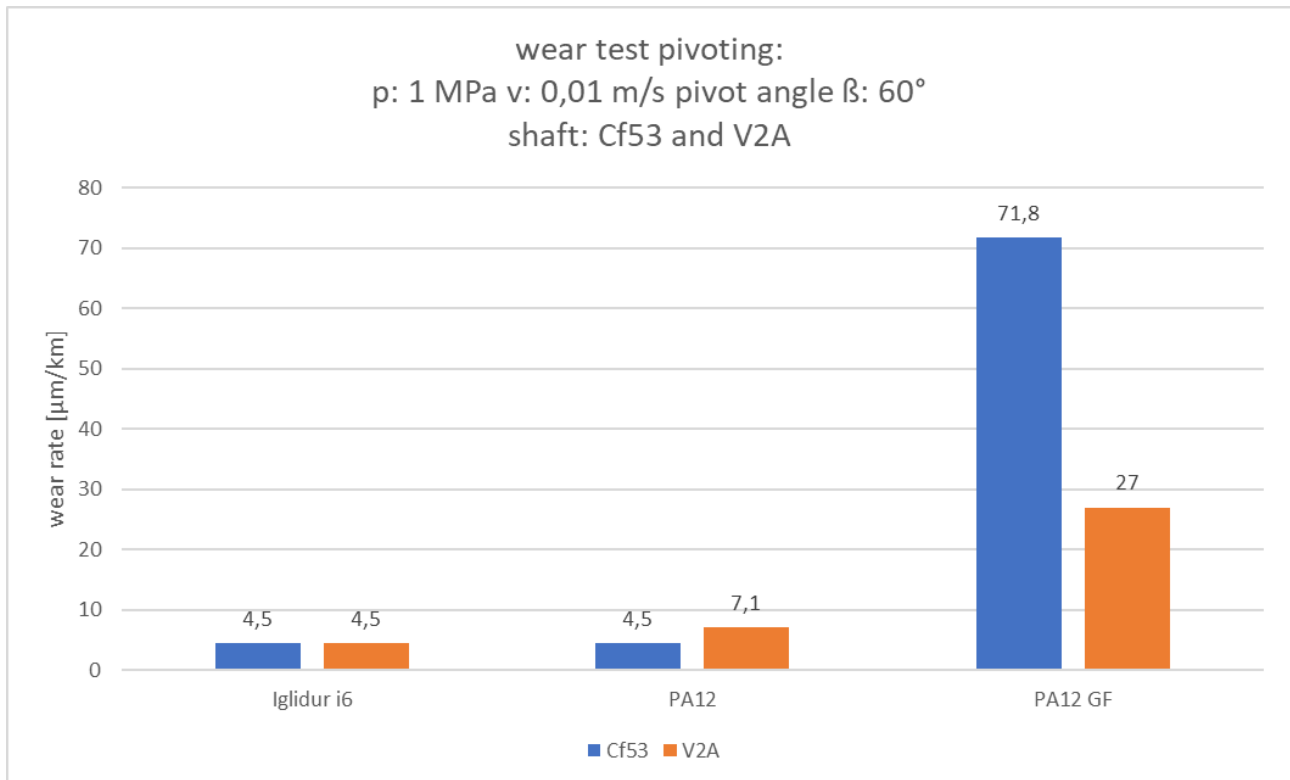
### 1. Mechanical strength



### 2. Wear test linear



### 3. Wear test pivoting



### 4. Coefficient of friction rotating

friction rotating: coefficient of friction  $\mu$  over a period of 100 hours  
v=0,1 m/s - p = 1 MPa - shaft material: Cf53

