

The iglidur® I3-PL material, specially developed for laser sintering, showed an abrasion resistance 3 to 30 times better than conventional materials for laser sintering in the tribological tests in the igus® test laboratory. This further increases the degrees of freedom in the design of sliding components subject to wear and tear. It is used for any sliding applications, as well as rollers, racks, spur gears and bevel gears.



Manufacturing method:

Laser sintering (SLS)

Application:

Wear parts of any kind, e.g. spur gears

Article number.:

I3-PL-1000 (1kg) and I3-PL-10000 (10kg)

Package:

Packaging unit from min. 1kg to 10kg bag

Handling and storage:

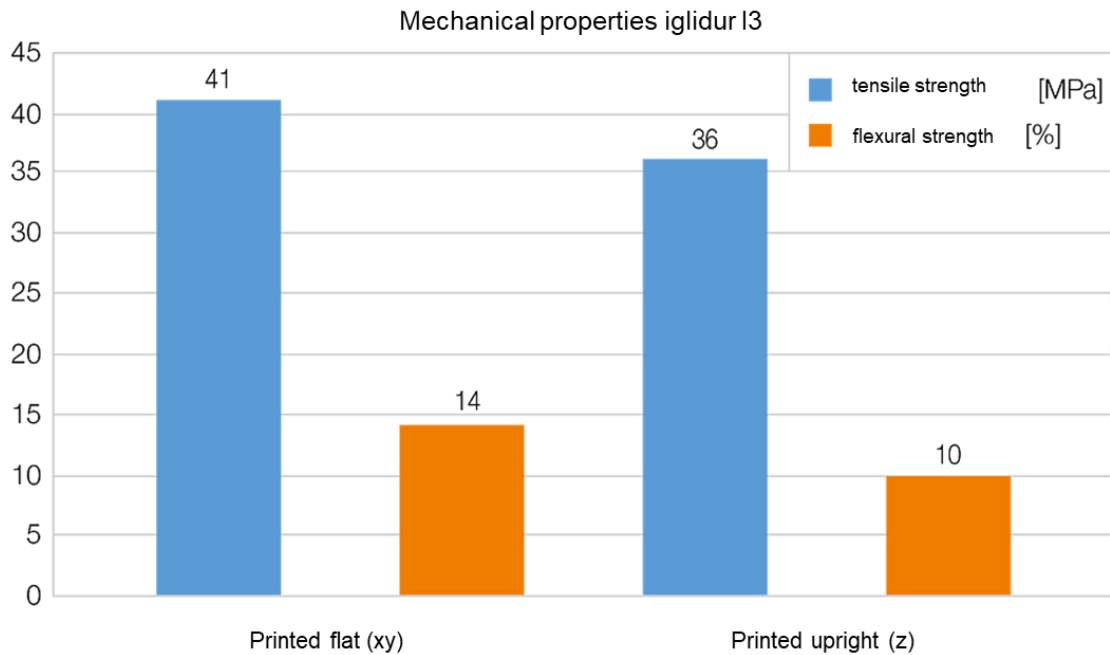
Store dry and cool; avoid absorbing humidity; Note MSDS

FAQ iglidur I3-PL:

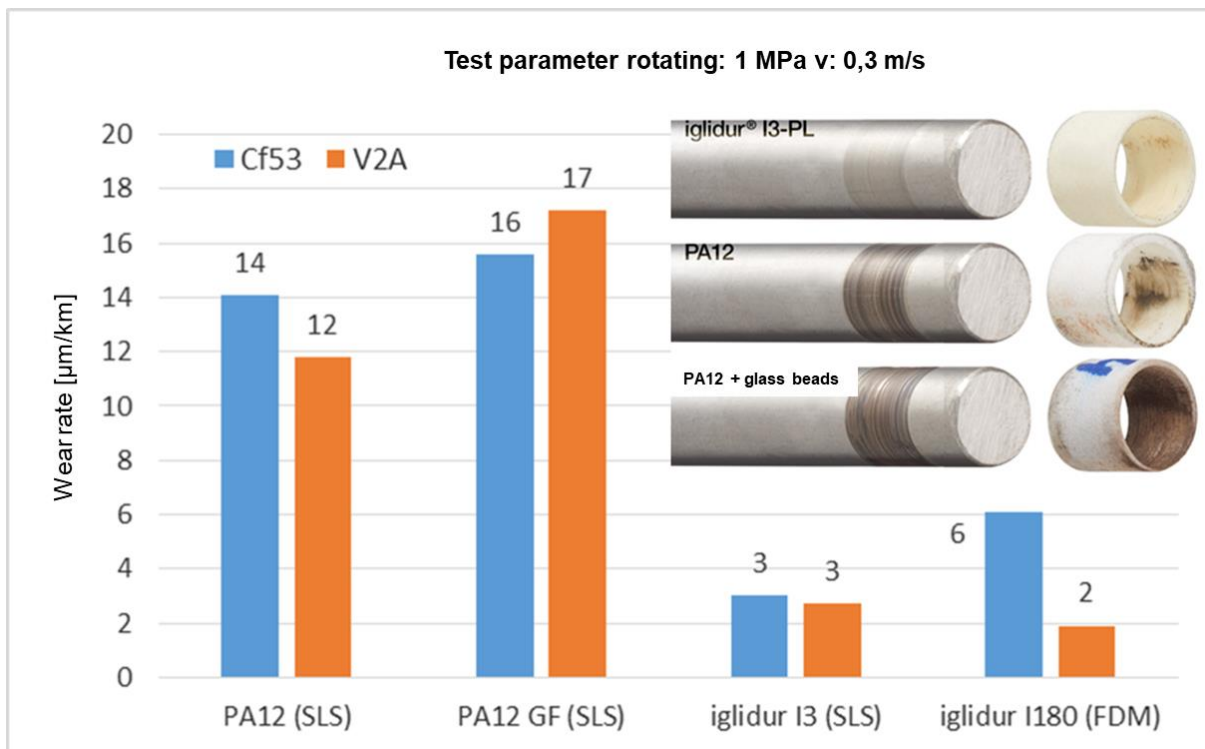
- What are the material strength parameter (flat/upright)?
 - See graph 1 below
- How are the wear properties and the friction coefficient?
 - See graph 2-4 below
- On which machines has the material been processed up to now?
 - Formiga P100/110 from EOS
- What is the refresh rate?
 - The quota is 75% new material and 25% used 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	-

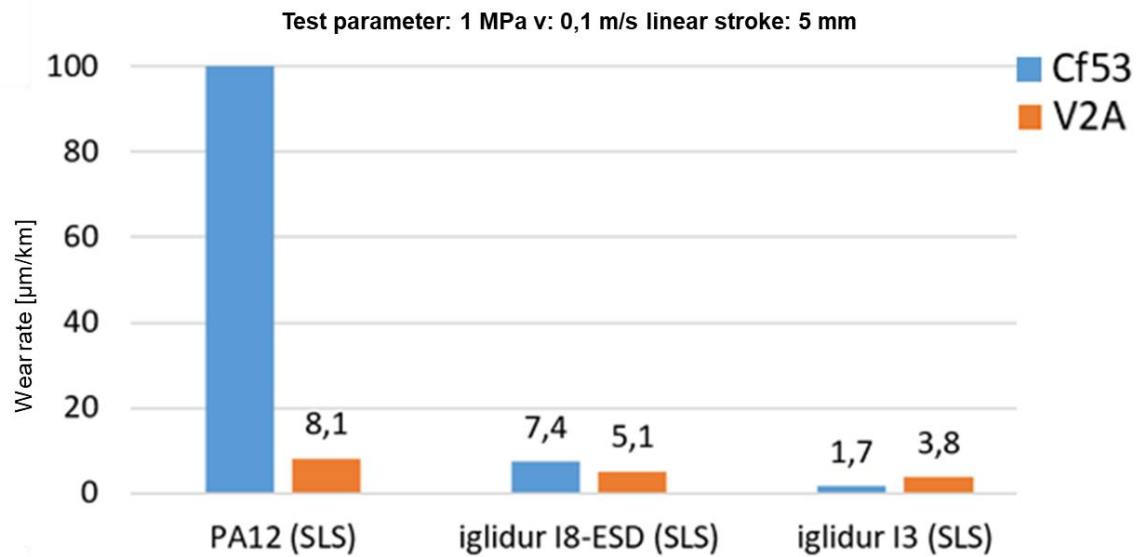
1. Mechanical strength



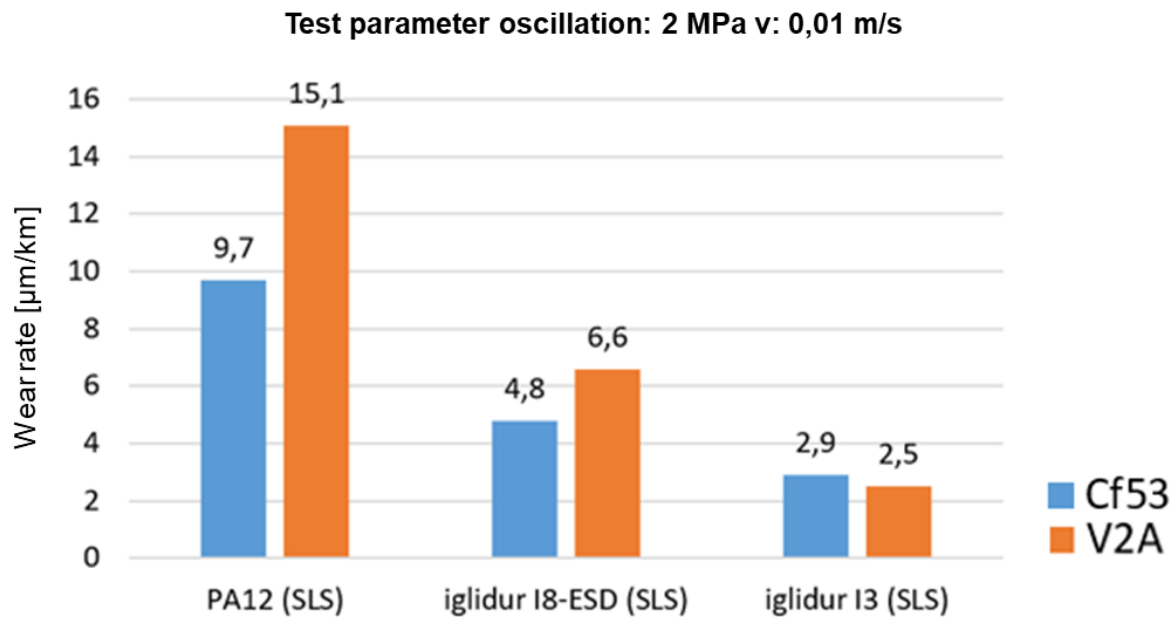
2. Wear test linear



3. Wear test linear

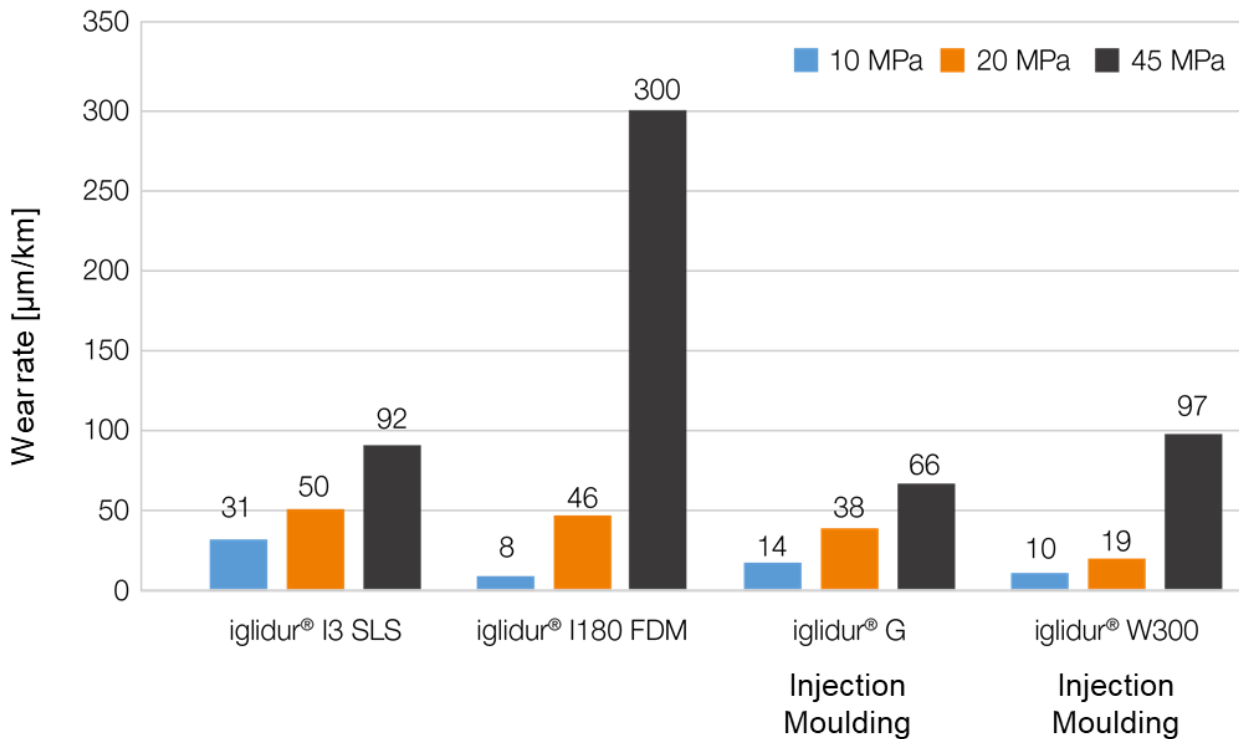


4. Wear test oscillation



5. Wear rate oscillation – high load

Test parameter oscillation – high load



6. Coefficient of friction rotating

Test parameter rotating: cof μ over time
v=0,1 m/s – p=1 MPa – shaft: Cf53

