

XILOYTM IG-SERIES: NEW SMI/PA-BASED MATERIALS

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XILOY™ IG-series based on SMI/PA

An addition to the nylon portfolio

Advantages

SMI

Warpage

Shrinkage

Functionality

Heat Chemical resistance

Creep

PA

Combining the advantages of amorphous and semicrystalline materials

Limitations

Flow Brittleness Odor Impact Warpage Water uptake Hydrolysis sensitivity Adhesion

Amorphous

Semicrystalline



XILOY™ IG-series

Extremely stable performance up to 160°C

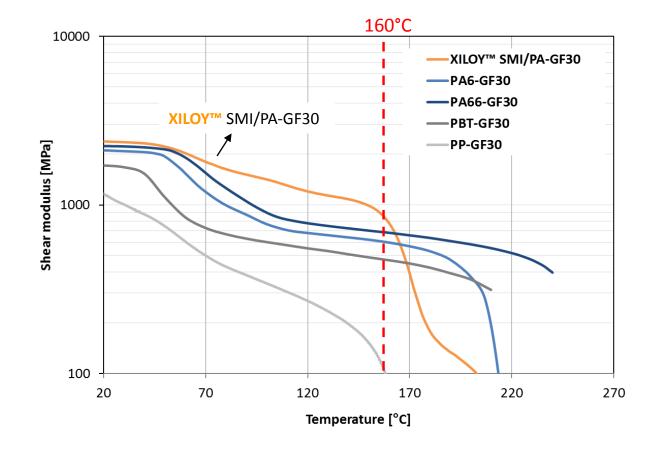
Best of both worlds

Advantages of **amorphous SMI**:

- Very low warpage and shrinkage
- Constant stiffness over very wide temperature range
- Low creep at high temperatures
- Low water absorption
- Surface functionality

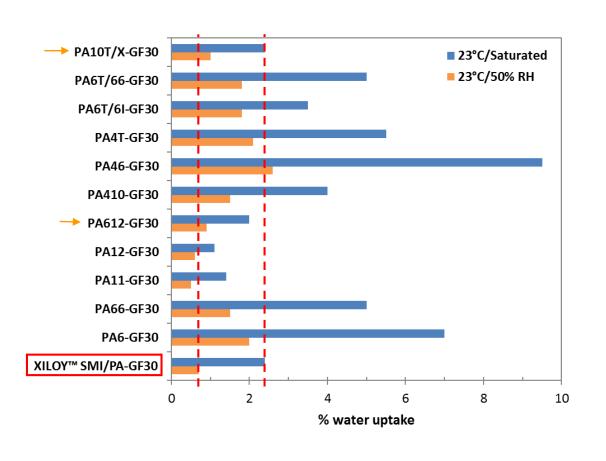
With **semicrystalline PA**:

- Chemical resistance
- Impact
- Flow

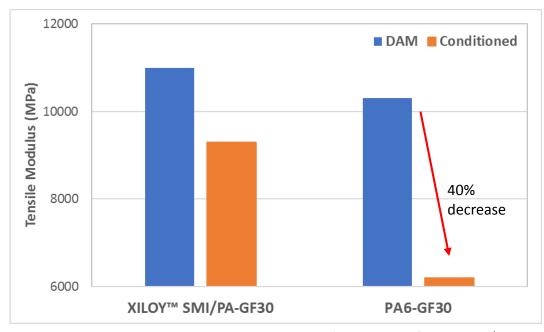




Moisture uptake of XILOY™ IG is very low and comparable to PA6.12 AND PA10T/X



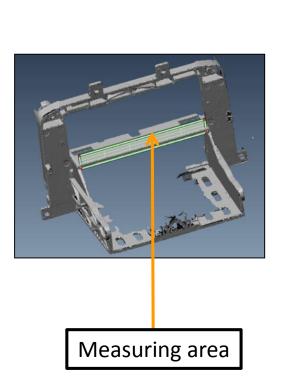
Limited impact of moisture on XILOY™ IG360 unlike for PA6 and PA66

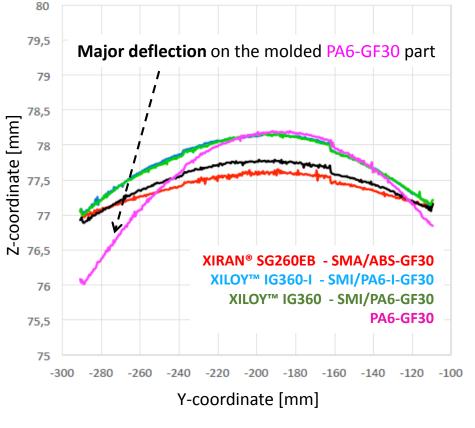


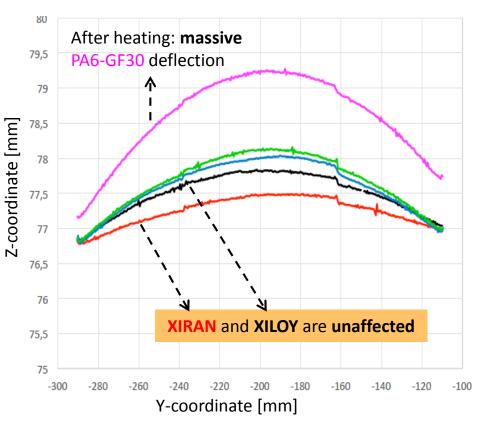


XILOY™ IG outperforms PA6 in <u>dimensional stability</u>

Example: radio-bracket annealed for 72h @ 90°C







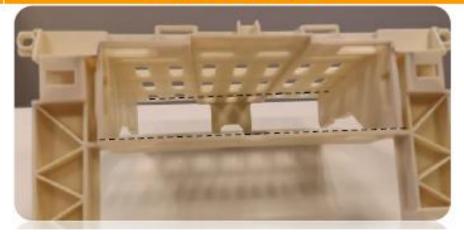


XILOY™ SMI/PA outperforms PA66 in <u>dimensional stability</u>

PA66 GF30 30% GF Post molding warpage

SMI/PA GF30 30% GF limited warpage





PA66-GF30

XILOY™ IG360 SMI/PA6-GF30



Potential applications for XILOY™ IG-series SMI/PA



EV opportunities



Door panels



Thermal management



Connectors, sensors, actuators



Appliances





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