

A photograph of a textile factory showing a row of large spools of white filament. The spools are arranged in a line, and the filament is being processed by machinery. The background shows industrial equipment and a worker in a green safety vest. The image is framed by a teal border.

Sustainability meets Strength

High-Strength Structural Parts

Material properties

Characteristics

- Thermoplastic matrix
- Variable fiber content from 40 to 60 vol-%
- Individual rectangle shape up to 300mm²
- Continuous fiber reinforcement (GF)

Mechanical data

Property	Test Standard	Unit	UD-PA6-GF70
Fiber content		vol-%	50
Fiber content		mass-%	70
Density		g/cm ³	1.8
Melting temperature	DIN EN ISO 11357	°C	222
Tensile strength*	DIN EN ISO 527	MPa	626
Tensile modulus*	DIN EN ISO 527	GPa	35.9
Tensile elongation at break*	DIN EN ISO 527	%	1.8
Flexural modulus	DIN EN ISO 14125	GPa	34.7
Flexural strength	DIN EN ISO 14125	MPa	686

* in direction of the fibers

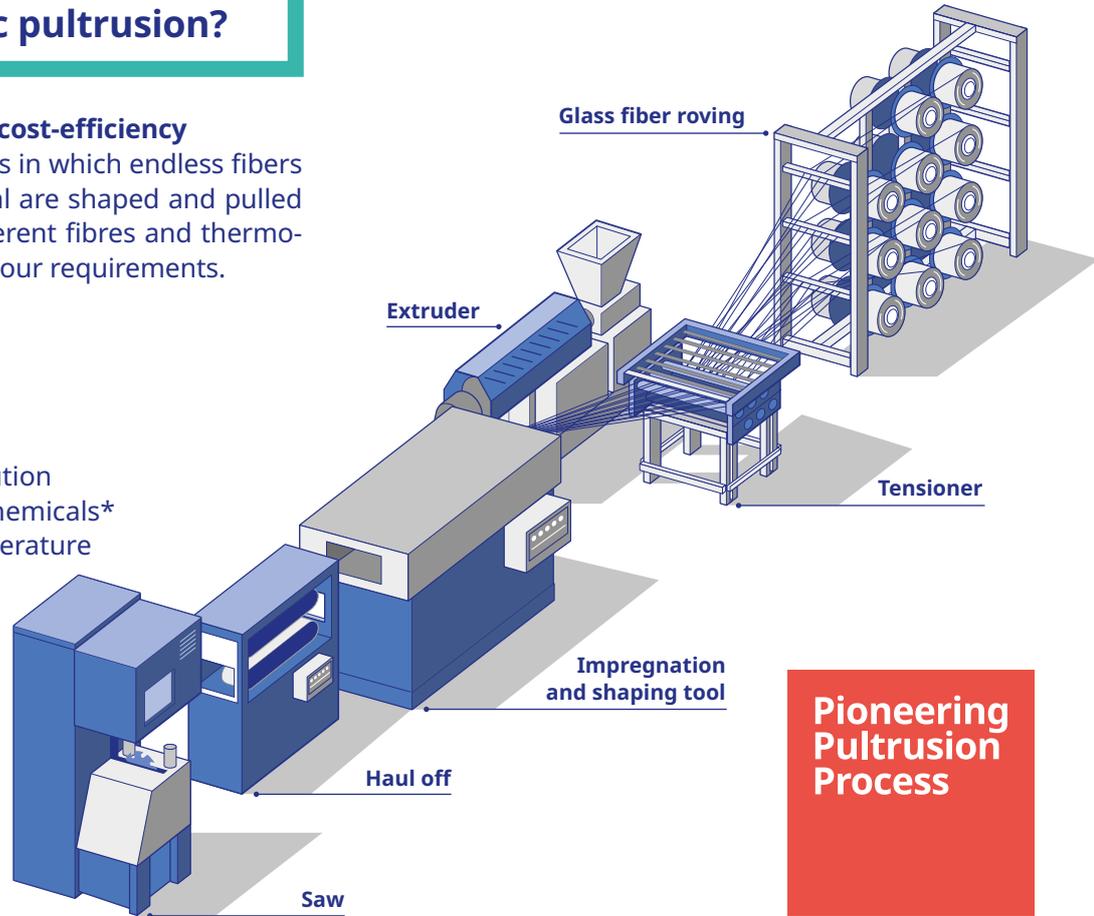
Why thermoplastic pultrusion?

Extreme strength at maximum cost-efficiency

Pultrusion is a continuous process in which endless fibers impregnated with matrix material are shaped and pulled through the system. We use different fibres and thermoplastic matrix materials to meet your requirements.

Benefits:

- Weldable
- Thermally reformable
- Recyclable
- Cost-efficient light-weight solution
- Resistant to a wide range of chemicals*
- Wide range of operating temperature
- Inserts for injection moulded or pressed components

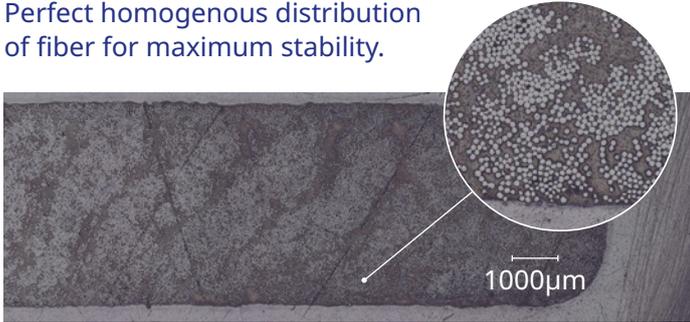


* Depending on chosen matrix

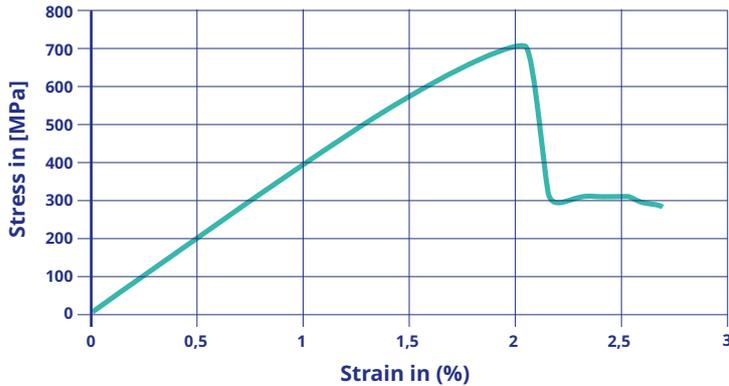
**Pioneering
Pultrusion
Process**

Highest mechanical results

Perfect homogenous distribution of fiber for maximum stability.

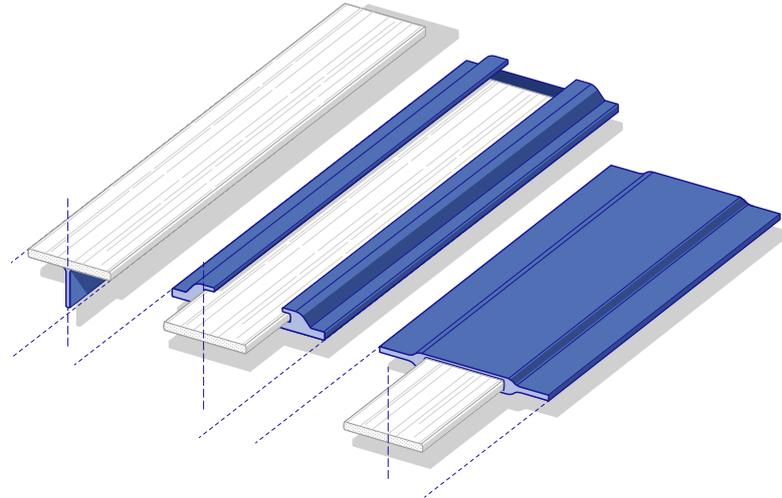


Stress-Strain-Diagram



Material: PA6 + endless glass fiber, sample size 15mm x 3mm

Weld, insert, overmould or thermoform:



Technoform scope:

Fixation
Reinforcement

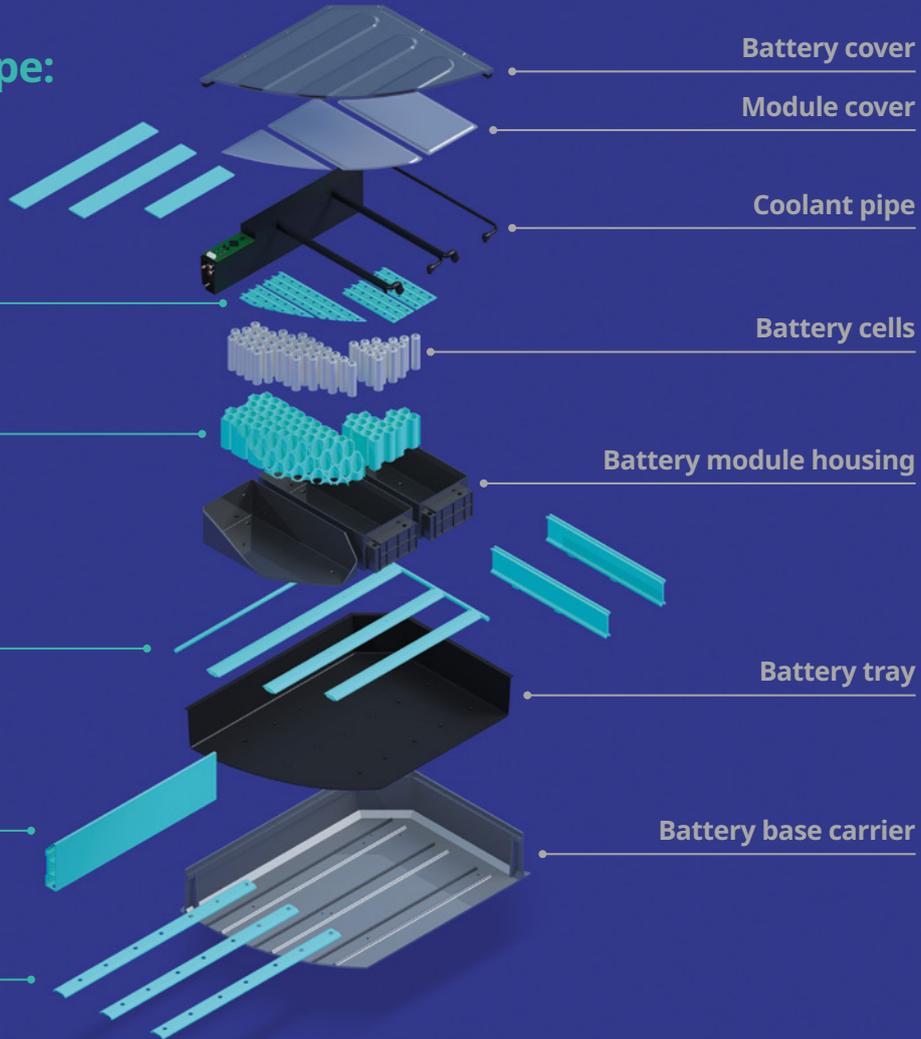
Cover
Electrical insulation

Cell holder
Spacer

Cross beams
Reinforcement

Frame
Crash protection

Vibration
damping



Battery cover

Module cover

Coolant pipe

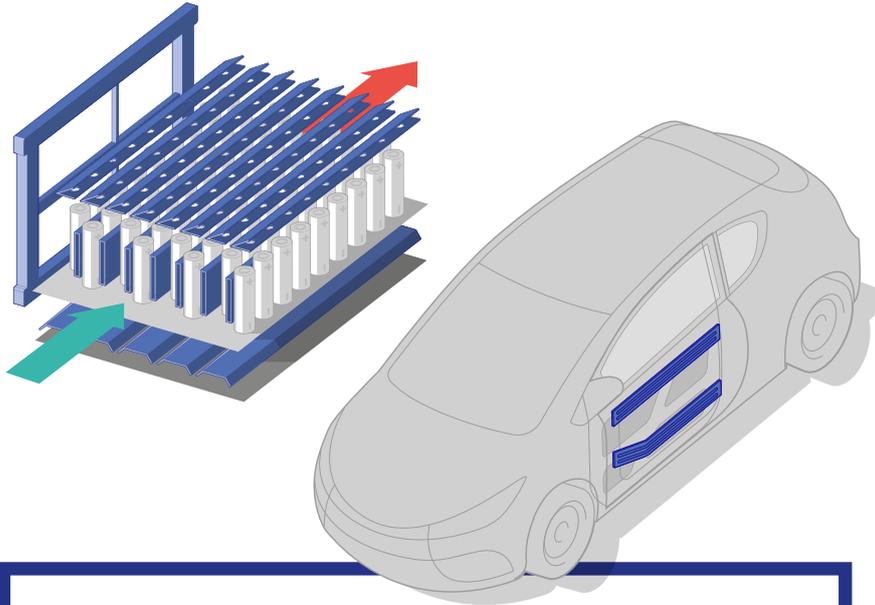
Battery cells

Battery module housing

Battery tray

Battery base carrier

Pioneering economic thermoplastic solutions



**Are you interested
in our sustainable solutions?**

We would be glad to advise you!

TECHNOFORM

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