TECHNOFORM

Sustainability meets Strength

Pioneering economic thermoplastic solutions

High-Strength Structural Parts

Material properties

Characteristics

- Thermoplastic polyamide matrix (PA/PP)
- Variable fiber content from 40 to 60 vol-%
- Individual rectangle shape up to 300mm^2
- Continuous fiber reinforcement (GF/CF)

Mechanical data

Property	Test Standard	Unit	UD-PA6-GF70
Fiber content		vol-%	53
Fiber content		mass-%	70
Density		g/cm^3	1.85
Melting temperature	DIN EN ISO 11357	°C	222
Tensile strength*	DIN EN ISO 527	GPa	>550**
Modulus of elasticity*	DIN EN ISO 527	GPa	>32**
Flexural modulus	DIN EN ISO 14125	GPa	37.5
Flexural strength	DIN EN ISO 14125	MPa	700 (0,45% moisture)

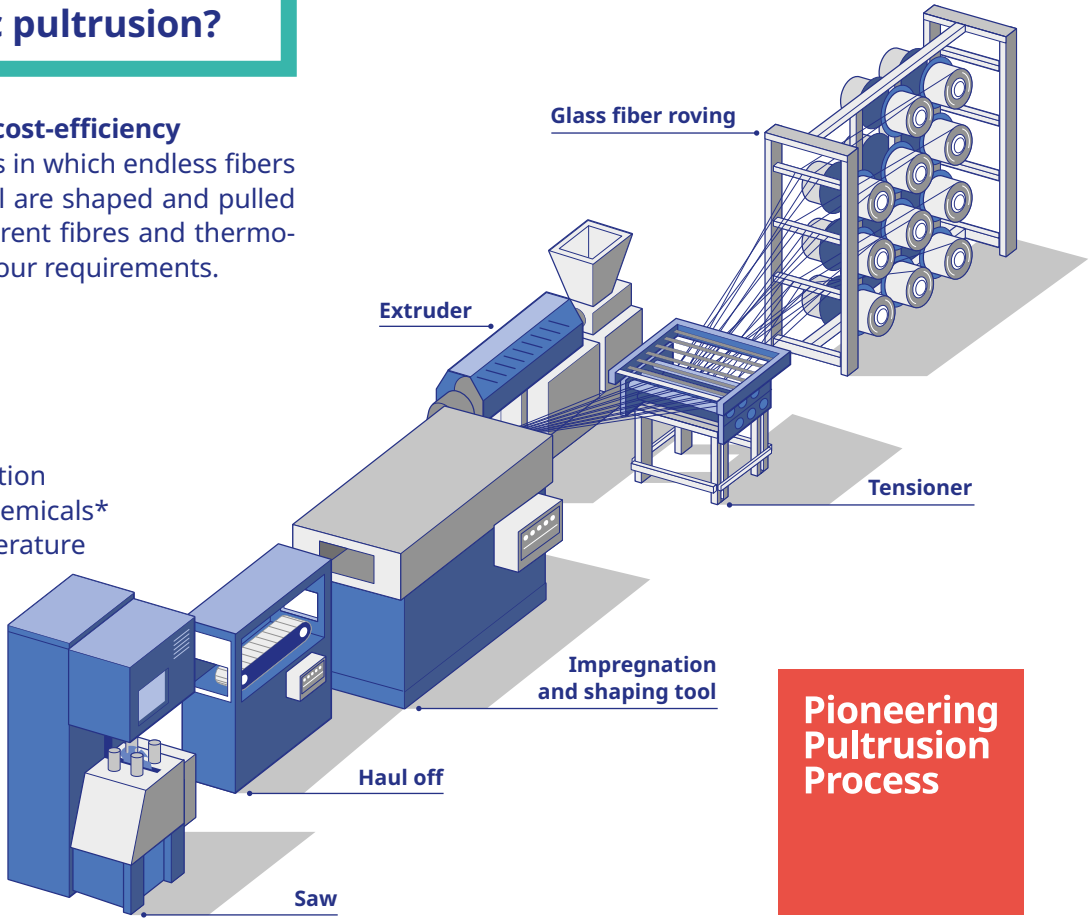
* in direction of the fibers

** Preliminary results

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

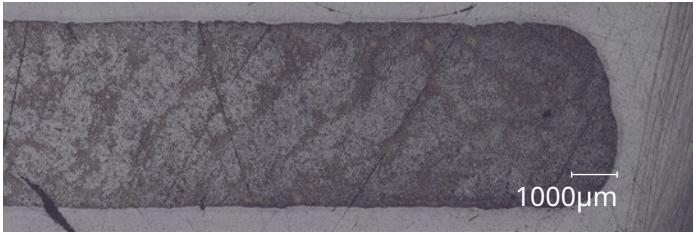


Pioneering Pultrusion Process

* Depending on chosen matrix

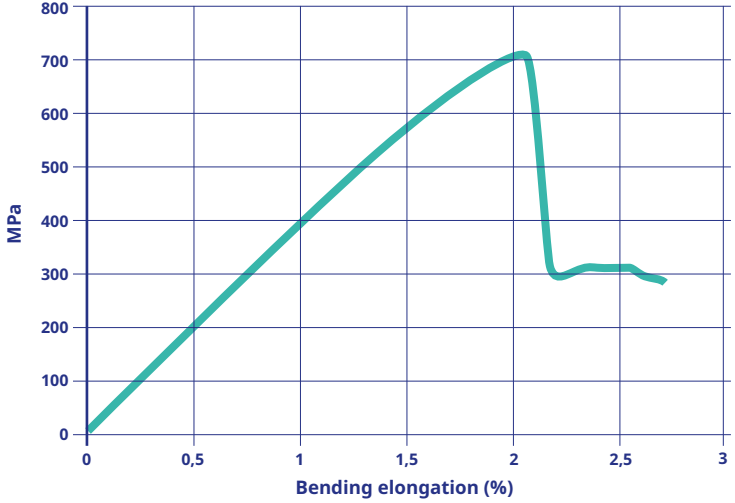
Highest mechanical results

We achieve perfect unidirectional fiber orientation.

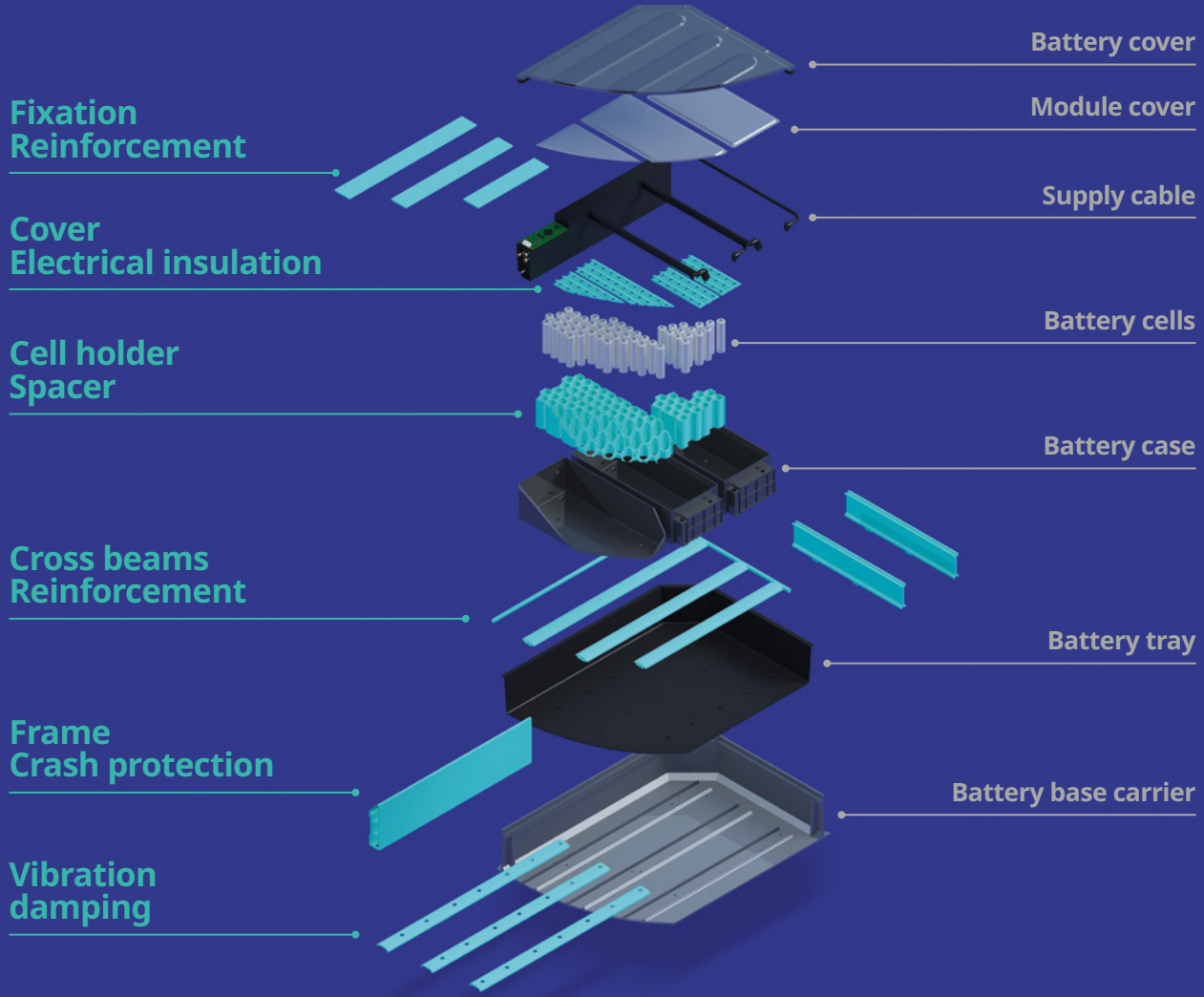


The picture shows:

- Homogenous distribution of fiber in the matrix
- No voids
- Good fiber-matrix bonding



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


Fixation
Reinforcement
Cover
Electrical insulation
Cell holder
Spacer
Cross beams
Reinforcement
Frame
Crash protection
Vibration
damping
Battery cover
Module cover
Supply cable
Battery cells
Battery case
Battery tray
Battery base carrier

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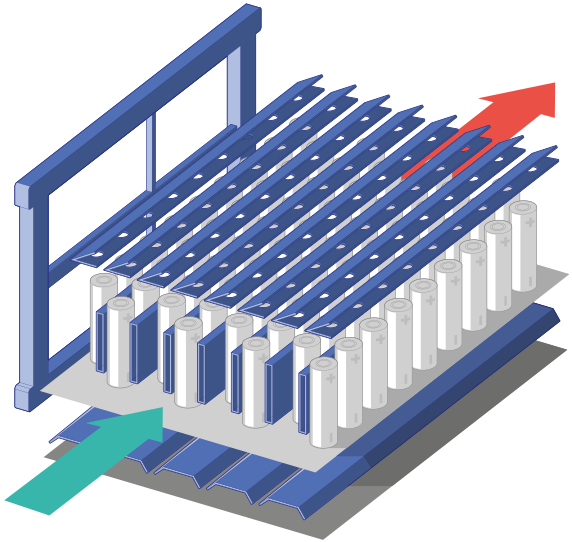

Are you interested in our sustainable solutions?

We would be glad to advise you!

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