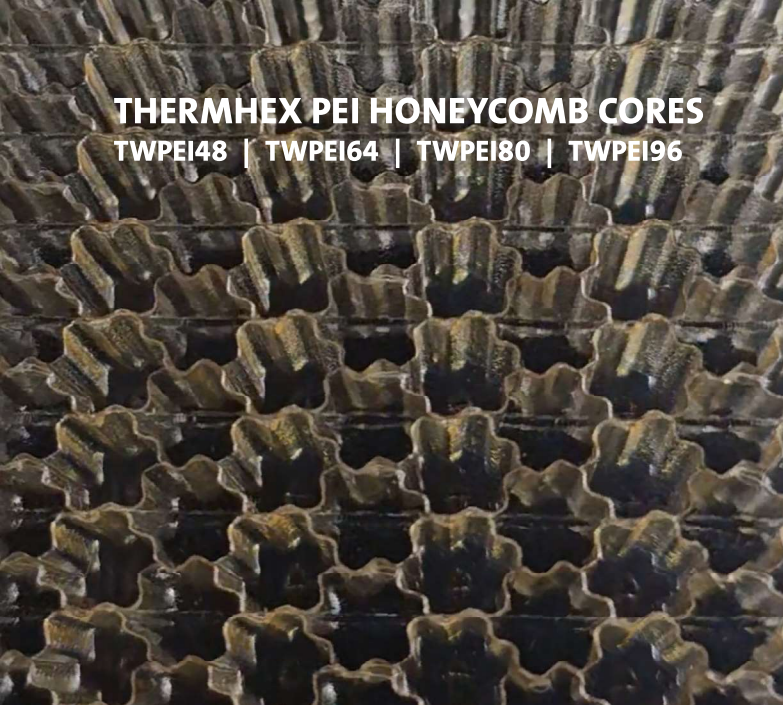


THERMHEX PEI HONEYCOMB CORES

THERMHEX^{WAVY} POLYETHERIMIDE HONEYCOMB CORES
THE NEW HIGH PERFORMANCE THERMOPLASTIC CORE MATERIAL

THERMHEX PEI HONEYCOMB CORES

TWPEI48 | TWPEI64 | TWPEI80 | TWPEI96

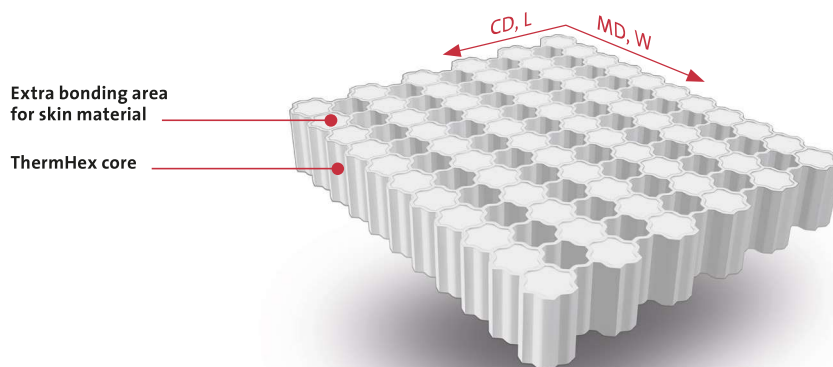


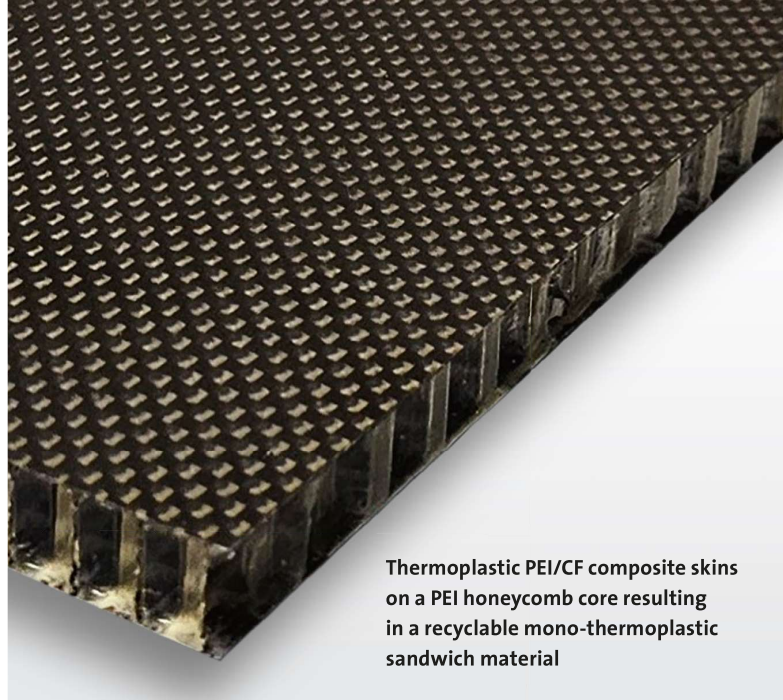
ThermHex honeycomb core with improved buckling and shear optimised patented wavy cell geometry

TECHNICAL DATA

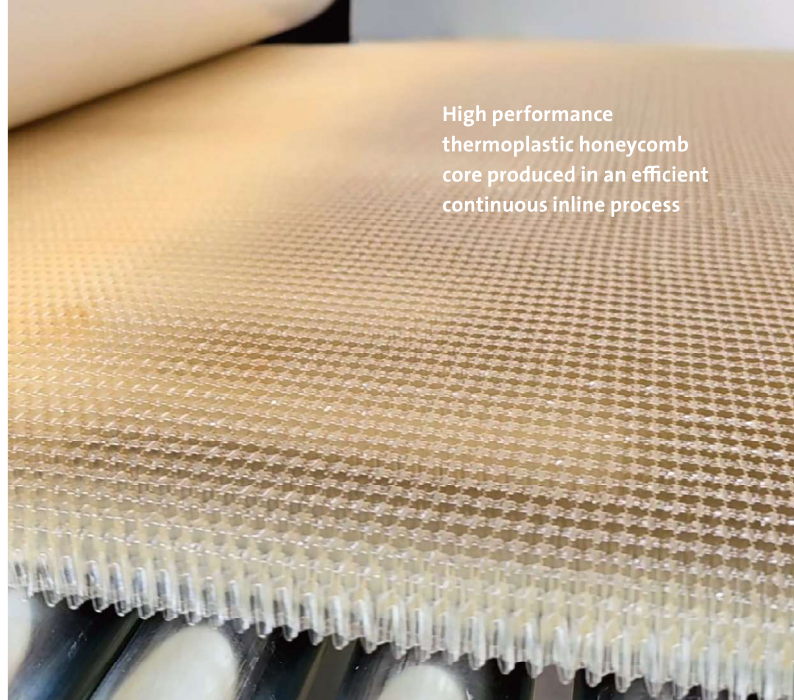
PRODUCT DESCRIPTION

	TWPEI48	TWPEI64	TWPEI80	TWPEI96
Core material	Polyetherimide	Polyetherimide	Polyetherimide	Polyetherimide
Core thickness (mm) (other geometries available upon request)	10 12	10 12	10 12	10 12
Cell diameter (mm)	6.4	6.4	6.4	6.4
Cell wall density (kg/m³)	48	64	80	96
Compressive strength (Z-direction) (MPa) (ASTM C365)	1.1	2.0	2.9	3.8
Compressive modulus (Z-direction) (MPa) (ASTM C365)	50	65	75	85
Shear strength (CD, L) (MPa) (ASTM C273)	0.7	1.1	1.5	1.9
Fire resistance	Fulfills all requirements of Federal Aviation Regulation (FAR 25.853)			
Standard dimensions (CD, L x MD, W) (mm)	2500 x 1200 (other geometries available in 400 mm width)			
Temperature range (°C)	-55 to +180			





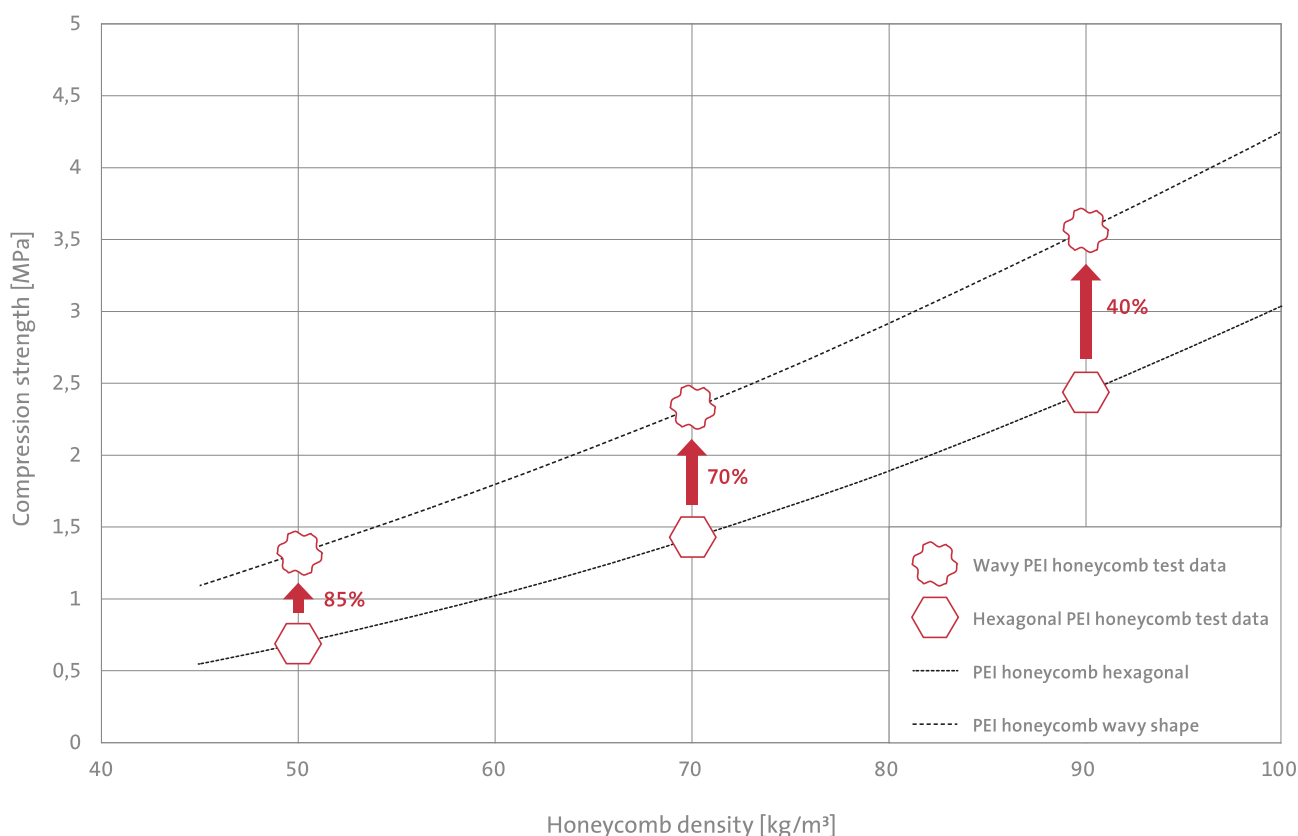
Thermoplastic PEI/CF composite skins on a PEI honeycomb core resulting in a recyclable mono-thermoplastic sandwich material



High performance thermoplastic honeycomb core produced in an efficient continuous inline process

THE COMPRESSION STRENGTH OF THERMHEX^{WAVY} PEI HONEYCOMB CORES

Flatwise compression strength (bare, not stabilised) in function of honeycomb cell wall density



ThermHex^{wavy} PEI honeycomb core is a continuously produced thermoplastic honeycomb core with exceptional fire resistance and temperature stability.

THERMHEX PEI HONEYCOMB CORES

Continuing to work with lightweight materials whilst using sustainable materials is one of the major challenges today's aviation industry faces. Aerospace industry and other high end applications have been favouring non-recyclable thermoset phenolic resin based honeycombs for a long time. To provide a more sustainable alternative, we offer a high performance thermoplastic honeycomb core. This without compromising the markets needs in weight, fire-safety and performance.

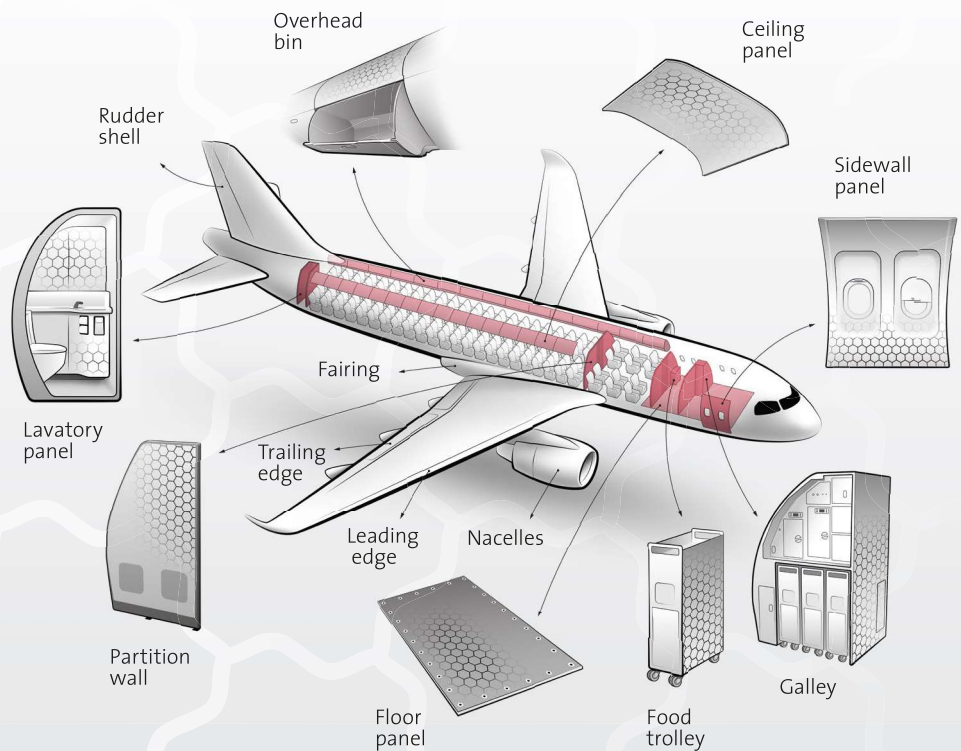
The target applications for PEI honeycomb cores are mainly aircraft and railway interior components. With a need for ramp up of production volumes and increasing focus on SHE (safety,

health, environment), efficiently produced thermoplastic honeycombs made with the already proven EconCore technology offer great potential. The thermoplastic honeycomb is typically laminated with fibre-reinforced thermoplastic composites, resulting in a mono-material, all-thermoplastic sandwich solution.

EconCore's new patented ThemHex wavy cell wall geometry increases the cell wall buckling resistance and thus the key mechanical properties of the honeycomb core.

ADVANTAGES IN AIRCRAFT INTERIORS

- HIGH WEIGHT-SPECIFIC STIFFNESS AND STRENGTH
- POTENTIAL COST REDUCTIONS
- REDUCED CO₂ FOOTPRINT
- 100% RECYCLABLE PEI
- EXCELLENT FIRE RESISTANCE
- ENABLES ADVANCED THERMOPLASTIC PROCESSING



THERMHEX WABEN GMBH

Merseburger Str. 235
D-06130 Halle (Saale)
Germany

Tel.: +49 345 131627-0
Fax: +49 345 131627-19
Email: info@thermhex.com
Web: www.thermhex.com



LIABILITY FOR DEFECTS

All information provided herein is based on our current knowledge and experience. Due to the high number of possible influences during processing and application, the information does not release the processor from the necessity of carrying out his own investigations and tests. Information contained herein and explanations provided by ThermHex Waben GmbH in connection with this printed matter does not represent acceptance of a guarantee. Guarantee statements require special explicit written declarations on behalf of ThermHex Waben GmbH to be effective. The constitutions stated in this datasheet determine the properties of the delivery item extensively and conclusively. Application suggestions do not establish assurance of suitability for the recommended application.

We reserve the right to adapt the product to satisfy technical progress and new developments. We would be pleased to help with any enquiries including those related to special application issues. If the application for which our products are used is subject to statutory approval, the user is responsible for the procurement of such approval. Our recommendations do not release the user from the obligation of taking the possibility of impairments to third-party rights into account and of clarifying these if necessary. Furthermore we refer to our General Terms and Conditions, especially with regard to any possible liability for defects. If you are not in possession of our General Terms and Conditions we would be pleased to supply these on request.