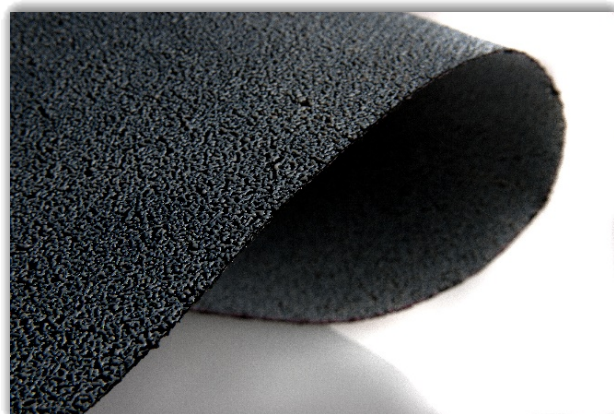
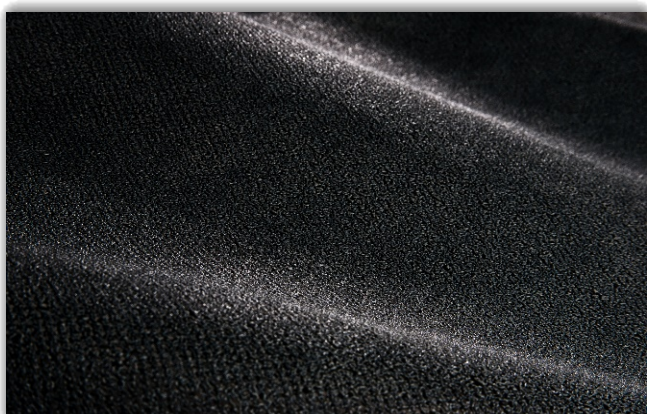


Tenax®-E TPWF PEEK-HTA40 is a thermoplastic powdered woven fabric composed of the high tenacity carbon fiber product Tenax®-E HTA40 E13 3K 200tex and a PEEK matrix. Tenax®-E TPWF PEEK-HTA40 can be used to produce composite components or laminates which can be simply heated above its melting temperature and then stamped in a metallic mould within a press in a short cycle time.



Product Benefits

- high-performance mechanical properties
- continuous use at elevated temperature
- low flammability, smoke and toxicity
- room temperature storage and shipping
- compliant to Health, Safety and Environment requirements
- biocompatible (comply with ISO 10993-5)
- recyclable

Process Benefits

- thermoformable (press forming)
- short cycle time
- large volume application
- suitable for automated processing (pick and place)
- thermoplastic joining technologies

Dimensions

Roll dimension	Width: 1.25 m Length: 200 m
Nominal thickness	0.31 mm

Brand name Tenax®
Production site E (Europe)
Product name TPWF PEEK-HTA40
Product designation Tenax®-E TPWF-PEEK-4-42-HTA40 E13 3K DT-5HS-285

Fiber Tenax®-E HTA40 E13 3K 200tex Density: 1.76 g/cm³
Matrix PEEK (Polyetheretherketon) Density: 1.30 g/cm³

Semi-finished product

Fabric style	5HS
Prepreg areal weight	485 g/m ²
Fiber areal weight	285 g/m ²
Matrix content	42 wt%
Nominal thickness (52 % FVC ⁽¹⁾)	0.31 mm

(1) FVC = Fiber volume content

Manufacturing recommendations

Consolidation temp.	390 ±30 °C 734 ± 54°F
Consolidation pressure	15 ±10 bar 218 ± 145 psi
Consolidation time	20 ±10 min

Properties (test direction)		Conditioning / Test temperature		Typical value	
Glass transition temperature	onset	23 °C / 50 % r.h.	143 °C	289 °F	
Tensile (warp, 0°) ISO 527-4	modulus	23 °C / 50 % r.h.	60 GPa	8.7 Msi	
	strength	23 °C / 50 % r.h.	963 MPa	139.7 ksi	
Compression (warp, 0°) EN 2850 Type B	modulus	23 °C / 50 % r.h.	59 GPa	8.6 Msi	
	strength	23 °C / 50 % r.h.	725 MPa	105.2 ksi	
Flexural (warp, 0°) EN 2562 Type A	modulus	23 °C / 50 % r.h.	64 GPa	9.3 Msi	
	strength	23 °C / 50 % r.h.	1166 MPa	169.1 ksi	

- All data are typical values representative of the material. Properties may vary depending on samples preparation and test methods.
- For each shipment an inspection certificate 3.1 according to DIN EN 10204 is generated and supplied.
- A detailed customer specification is arranged on request.
- The export or transfer of carbon fiber products can be subject to authorization, depending on end-use and final destination