

Brand name Tenax™
Production site Europe
Product designation TPUD HT 02 0145 610021
Product key 610021
Carbon Fiber Tenax™-E HTS45 P12 12K 800tex
 Density: 1.77 g/cm³
Matrix PAEK (Polyaryletherketone)
 Density: 1.30 g/cm³



Semi-finished Product

Total Areal Weight	220 g/m ²
Fiber Areal Weight	145 g/m ²
Matrix Content	34 wt%
Nominal Consolidated Ply Thickness	.0055" 0.14 mm
Width	12" and 24" (304.8 mm and 609.6 mm) Slitting on request

Thermoforming Recommendations

Consolidation Temp.	662± 18 °F 350 ± 10 °C
Consolidation Pressure	290 ± 145 psi 20 ± 10 bar
Consolidation Time	20 ± 10 min.

Properties (Test Direction)		Test Temperature/ Conditioning	Typical Values	
Glass Transition Temperature	onset	23 °C / 50 % r.h.	147 °C	297 °F
Tensile (0°) EN 2561 B	Strength	23 °C / 50 % r.h.	2235 MPa	324.3 ksi
	Modulus	23 °C / 50 % r.h.	140 GPa	20.3 Msi
Tensile (90°) EN 2597 B	Strength	23 °C / 50 % r.h.	88 MPa	12.8 ksi
	Modulus	23 °C / 50 % r.h.	9.2 GPa	1.3 Msi
Compression (0°) EN 2850 B1/B2	Strength	23 °C / 50 % r.h.	1400 MPa	203 ksi
	Modulus	23 °C / 50 % r.h.	129 GPa	18.7 Msi
In-Plane Shear (+45°/-45°) EN 6031	Strength	23 °C / 50 % r.h.	133 MPa	19.3 ksi
	Modulus	23 °C / 50 % r.h.	4.4 GPa	0.60 Msi

- All data shown are typical values representative of the material and cannot be guaranteed. 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