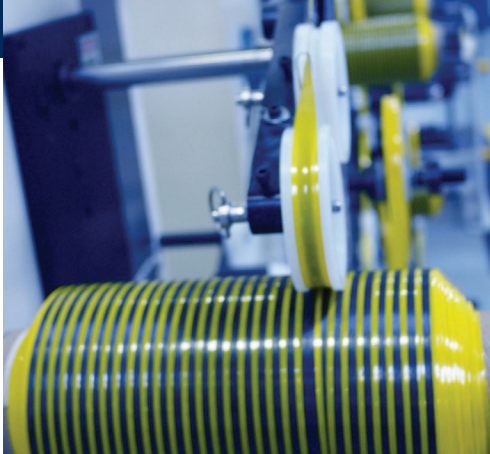


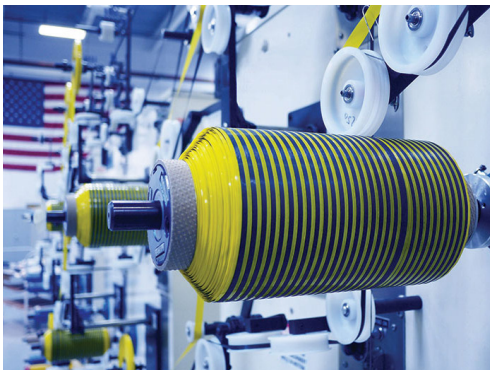
Thermoset and Thermoplastic Unitape Slitting

PRODUCT HIGHLIGHTS



More recently, thermoplastic slit tapes have been secondarily braided. This braided form allows easy fabrication of tubular and curved structures. Braided composites made from thermoplastic slit tapes can be used in a variety of applications including:

- › Aircraft seat frames
- › Structural tubes
- › Pipe
- › Driveshafts



OVERVIEW

TenCate has in house slitting capabilities for unidirectional tapes. This equipment can produce either thermoset and thermoplastic slit tapes for automotive tape laying (ATL) applications. This provides improved lead times, and greater material control for TenCate customers.

THERMOSET AND THERMOPLASTIC SLIT TAPES

While ATL of thermoset unidirectional tapes is common practice in the composites industry, thermoplastic unidirectional tapes in ATL form are also a proven fabrication method. Typically in thermoplastic ATL applications, a robotic head with a laser or hot-gas heat source heats the tape and the robotic head directs and consolidates the tape. This allows complex structure to be fabricated precisely through automation. Thermoplastic tapes offer two advantages over thermoset tape laying in that 1) thermoplastic tapes have an indefinite shelf life at ambient which means control of outtime is not necessary and 2) the consolidation of thermoplastic tapes means no secondary cure is required. Once the tapes are heated, placed and compacted, the part is complete.

TENCATE SPLIT TAPE OPTIONS

Slit Tape Widths	Thermoset: 3.18, 6.35, 7.94 mm (1/8, 1/4, 5/16 inches)
	Thermoplastic: 3.18, 6.35, 12.7 mm (1/8, 1/4, 1/2 inches)
Core Types	Pancake Wound <ul style="list-style-type: none"> • Slit width plus 6.35 mm (0.25 inches) on core All tapes >12.7 mm (0.5 inches) are pancake wound.
	Traverse Wound <ul style="list-style-type: none"> • 7.6 cm x 28 cm (3 inches ID x 11 inches) length • DIN250 ID (0.866") core, 24.6 cm (9.7 inches) diameter
Splice Methods	Thermal, tape or none.
Other: Thermoset only	Yellow poly (2.5 mils by 0.5 inches wide) available.

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