

## Data Sheet

# BETA TX670 DISCO PREPREG

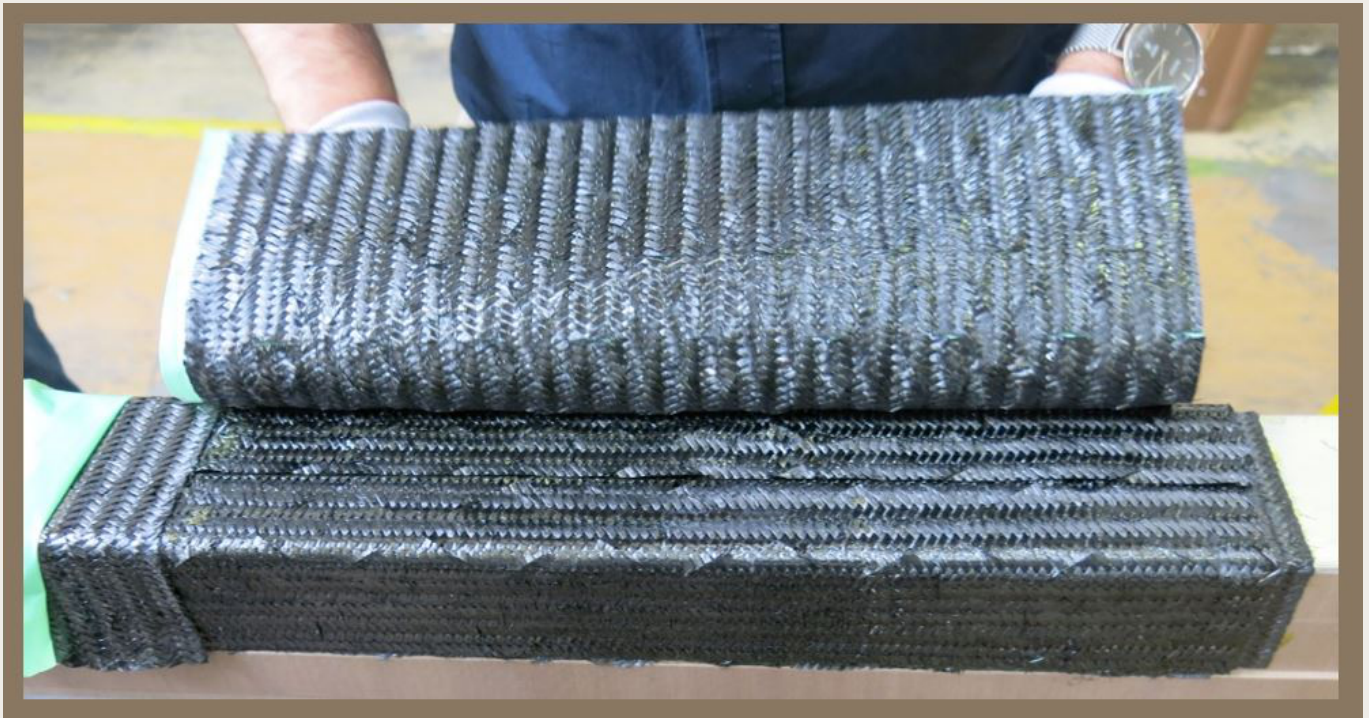
High stability room temperature storage tooling system

### DESCRIPTION

Beta TX670 DISCO is a prepreg sold in sheet format. This special format allows for simpler and faster layups. Beta TX670 DISCO Prepreg has a 0°, +/-60° orientation, is quasi-isotropic within each ply, and comes with an engineered cut pattern that improves drapability.

### BENEFITS

- Discontinuous sheets reduce layup effort and improve conformability.
- Quasi-isotropic within each ply, providing simpler and faster layup.
- Will produce consistent laminate thickness for even heat-up and meeting design targets.
- Exceptionally long out-life at room temperature of 6 months.
- Has outstanding toughness, high glass transition temperature, and stability at high temperatures.
- Exceptionally low shrinkage improves tool surface quality and reduces residual laminate stresses.
- Excellent surface finish and vacuum integrity after machining.
- Very low moisture absorption in comparison to epoxy tools.



### TECHNICAL DATA

Physicals	Beta TX670 DISCO
Fibre / Yarn Type	Carbon / 24K
Weave Style	Triaxial 0°, +/-60°
Fibre Areal Weight	670 g/m <sup>2</sup>
Resin Content	37 +/- 3 %
Nominal Cured Ply Thickness	0,66 mm
Service Temperature	218°C
Glass Transition Temperature	251°C
Shrinkage	< 0,2 %

Last updated : 2018-06-05

Catalogue position : [Toolmaster® Tooling materials](#)

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### ■ SHELF LIFE

6 months at 25°C or 18 months at -17°C from date of shipment when stored in original packaging

### ■ SIZES

Product Reference	Width	Length	Minimum Order Quantity
Beta TX670 DISCO	60 +/- 1,3 cm (24 +/- 0,5 inch)	60 +/- 1,3 cm (24 +/- 0,5 inch)	1 box (24 sheets per box)

### ■ CURE INSTRUCTIONS

Cure	Autoclave Vacuum / Pressure / Temperature 6mm Laminates	Dwell
1	Apply full vacuum at 28 inHg. Then apply pressure to a minimum of 5,5 bar and vent to atmosphere when pressure exceeds 1 bar.	-
2	Heat at 0,5-1,5°C / minute until lagging thermocouple reaches 160 +/- 3°C.	Hold for 1 hr
3	Heat at 0,5-1,5°C / minute to 185 +/- 3°C.	Hold for 3 hrs
4	Cool 1-3°C / minute to below 49°C before dumping pressure and removing from autoclave.	-

Post Cure	Oven Temperature / Autoclave Temperature 185°C Tool Use	Dwell
1	Place Toolmaster® tool in oven supporting as necessary	-
2	Heat at 3°C / minute to 92°C.	Hold for 1 hr
3	Heat at 1-2°C / minute to 120°C.	Hold for 1 hr
4	Heat at 1-2°C / minute to 177°C.	Hold for 1 hr
5	Heat at 1-2°C / minute to 218°C.	Hold for 4 hrs
6	Cool at 1-3°C / minute to below 49°C.	-

### ■ POST MACHINING

#### **Beta Prepreg Laminates**

- PCD (Polycrystalline Diamond) cutting tools are recommended for post machining of Beta TX670 DISCO laminates. Contact Airtech technical support for further information.

### ■ NOTES

- Temperature measurements should be obtained with thermocouples, properly placed for accurate temperature readings. Program controller should follow lagging thermocouple for cure and post cure.
- To avoid condensation, allow prepreg from freezer to warm to room temperature before using.
- Beta TX670 Prepreg is also available in 122 cm (48 inches) wide format without the cut pattern. Contact Airtech for more information.

Last updated : 2018-06-05

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