

## Data Sheet

## DAHLTRAM® U-350CF

### High temperature additive manufacturing

#### DESCRIPTION

Dahltram® U-350CF is a cost effective, high temperature use, additive manufacturing polymer with a maximum recommended use temperature of 204°C. It is reinforced with carbon fibre for maximum strength and long term performance. Dahltram® U-350CF is ideal for high temperature tooling solutions and high temperature master moulds. Additionally, it is vacuum tight, autoclave capable, and can be machined to the tolerances and surface finish required.

#### BENEFITS

- Additive manufactured tools can go from conception to the production floor in days not weeks.
- Dahltram® U-350CF is a cost effective solution ideal for 176°C cure systems and much more.
- Provides higher strength, higher temperature performance with lower creep.
- Carbon reinforcement offers greater stiffness versus glass and low warpage for predictable results.

#### TECHNICAL DATA

| Physicals                | Typical Values | Test Method          |
|--------------------------|----------------|----------------------|
| Base Polymer             | Modified PESU  |                      |
| Reinforcements           | Carbon Fibre   |                      |
| % Fibre Loading          | 25%            |                      |
| Tensile Strength         |                |                      |
| X Direction              | 115 MPa        | Modified ASTM D638   |
| Z Direction              | 50,3 MPa       | Modified ASTM D638   |
| Tensile Modulus          |                |                      |
| X Direction              | 11,7 GPa       | Modified ASTM D638   |
| Z Direction              | 3,8 GPa        | Modified ASTM D638   |
| Flexural Strength        |                |                      |
| X Direction              | 194,8 MPa      | Modified ASTM D790   |
| Z Direction              | 106,9 MPa      | Modified ASTM D790   |
| Flexural Modulus         |                |                      |
| X Direction              | 13,1 GPa       | Modified ASTM D790   |
| Z Direction              | 4,1 GPa        | Modified ASTM D790   |
| HDT, 1,82 Mpa, 3,22 mm   | 215°C          | ASTM D648 (Annealed) |
| Water Absorption (24 hr) | TBD            |                      |
| Density as Printed       | 1,29 g/cc      | ASTM D792            |

\*Where X is the bead print direction and Z is through the bead thickness.

#### SIZES

| Weight            | Packaging | Form   |
|-------------------|-----------|--------|
| 25 kg (55 lb)     | Bag       | Pellet |
| 100 kg (220 lb)   | Drum      | Pellet |
| 590 kg (1,300 lb) | Box       | Pellet |

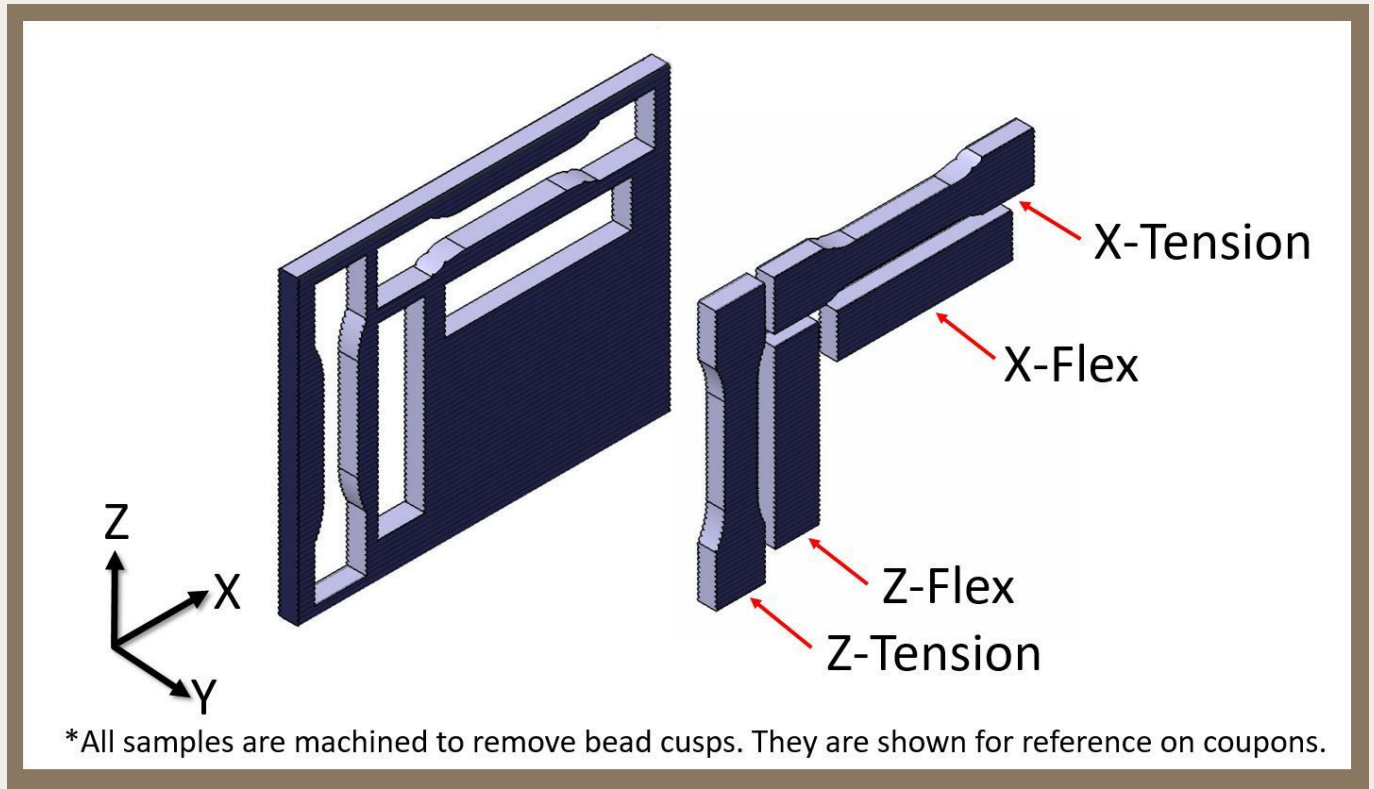
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Catalogue position : [Print-Tech®](#)

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### NOTES

- The maximum use temperature is dependent upon the duration at maximum temperature, and is process specific, Airtech recommends testing prior to use.
- Shelf life unlimited when stored in original packaging at 22°C.

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Catalogue position : [Print-Tech®](#)