

## Fiche Technique

**DAHLTRAM® I-350CF**

## High temperature additive manufacturing

**DESCRIPTION**

Dahltram® I-350CF is a cost effective, high temperature use, technical resin for additive manufacturing with a maximum recommended use temperature of 204°C (400°F). It is reinforced with carbon fibre for maximum strength, stiffness, and long-term performance. Dahltram® I-350CF is ideal for applications demanding ultimate performance, rapid prototypes, functional end use parts, high temperature tooling solutions, and high temperature master molds.

**BENEFITS**

- Dahltram® I-350CF is a cost-effective solution ideal for high strength applications, rapid prototypes, functional mock-ups, 176°C (350°F) cure systems, and much more.
- Carbon reinforcement provides higher strength, and higher temperature performance with lower creep.
- Better moisture absorption, better strength to weight, higher stiffness, and higher flexural strength than other high temperature additive manufacturing resins.

**TECHNICAL DATA**

| Physicals                | Typical Values                        | Test Method          |
|--------------------------|---------------------------------------|----------------------|
| Base Polymer             | Modified PEI                          |                      |
| Reinforcements           | Carbon Fiber                          |                      |
| % Fibre Loading          | 20%                                   |                      |
| Tensile Strength         |                                       |                      |
| X Direction              | 18.3 ksi (126 MPa)                    | Modified ASTM D638   |
| Z Direction              | 9.8 ksi (68 MPa)                      | Modified ASTM D638   |
| Tensile Modulus          |                                       |                      |
| X Direction              | 1.7 Msi (11.7 GPa)                    | Modified ASTM D638   |
| Z Direction              | 0.5 Msi (3.8 GPa)                     | Modified ASTM D638   |
| Flexural Strength        |                                       |                      |
| X Direction              | 28.2 ksi (194 MPa)                    | Modified ASTM D790   |
| Z Direction              | 15.5 ksi (107 MPa)                    | Modified ASTM D790   |
| Flexural Modulus         |                                       |                      |
| X Direction              | 1.9 Msi (13.1 GPa)                    | Modified ASTM D790   |
| Z Direction              | 0.6 Msi (4.1 GPa)                     | Modified ASTM D790   |
| HDT, 1.82 Mpa, 3.22 mm   | 212°C (414°F)                         | ASTM D648 (Annealed) |
| Water Absorption (24 hr) | 0.17%                                 | ASTM D570            |
| Density as Printed       | 1.15 g/cc (0.042 lb/in <sup>3</sup> ) | ASTM D792            |

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

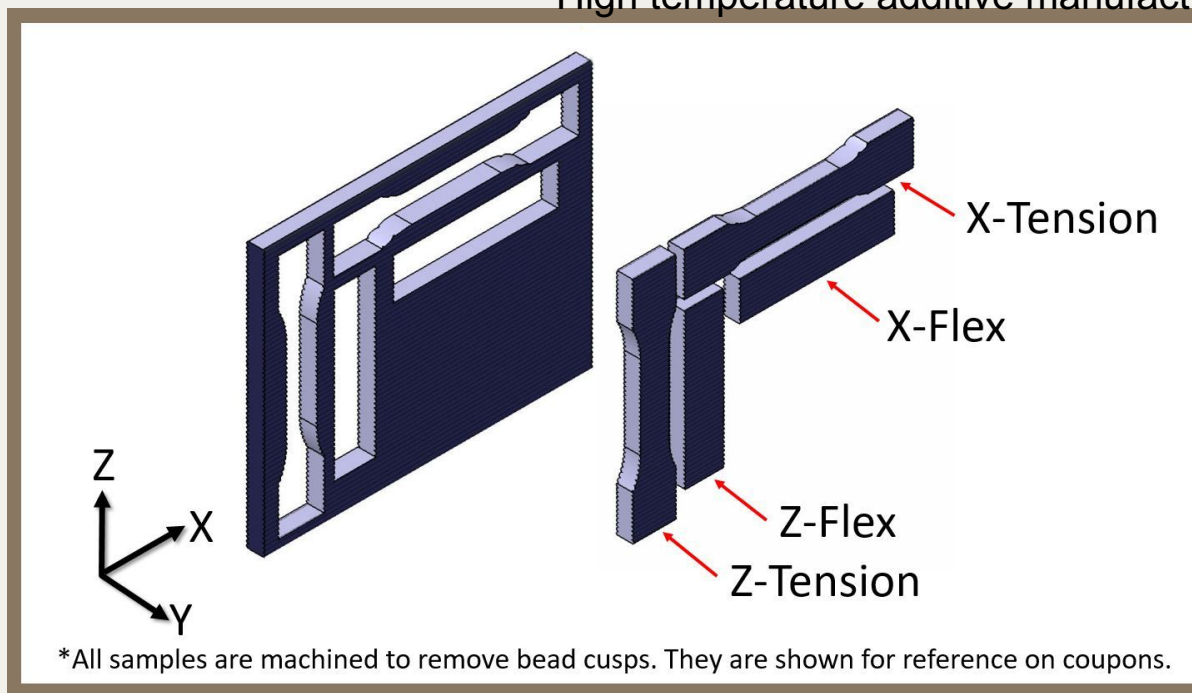
**SIZES**

| 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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**SUSTAINABILITY**Can be  
recycledRecyclable  
packaging**NOTES**

- As-printed mechanics from samples produced by a 12.7mm nozzle, 21 x 5mm beads, and printed under recommended extrusion and drying conditions. Results may vary based off individual hardware and processing conditions.
- Properties are for virgin, first grade use material only. Airtech makes no claims for material that has been reprocessed and re-extruded.
- For comprehensive thermomechanical data and processing parameters contact your Airtech account manager.
- 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 (72°F).