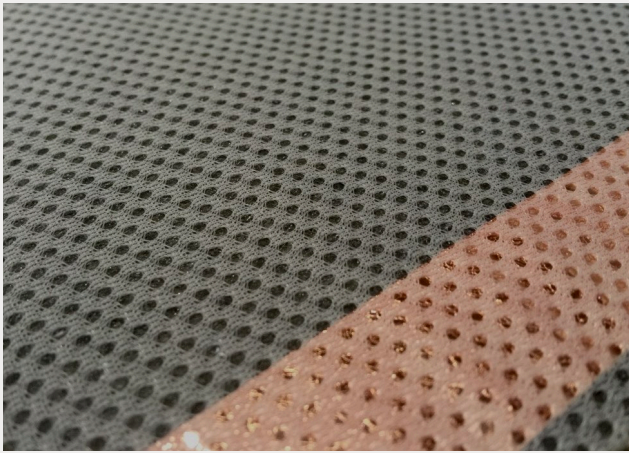


# PowerFabric “Plus” Data Sheet

**PowerFabric Plus** can be embedded in a large range of resins, adhesives and inorganic components. Liquid resins or *Prepregs* penetrate the open fibre structure and allow for an air-free impregnation either under vacuum or higher pressure.



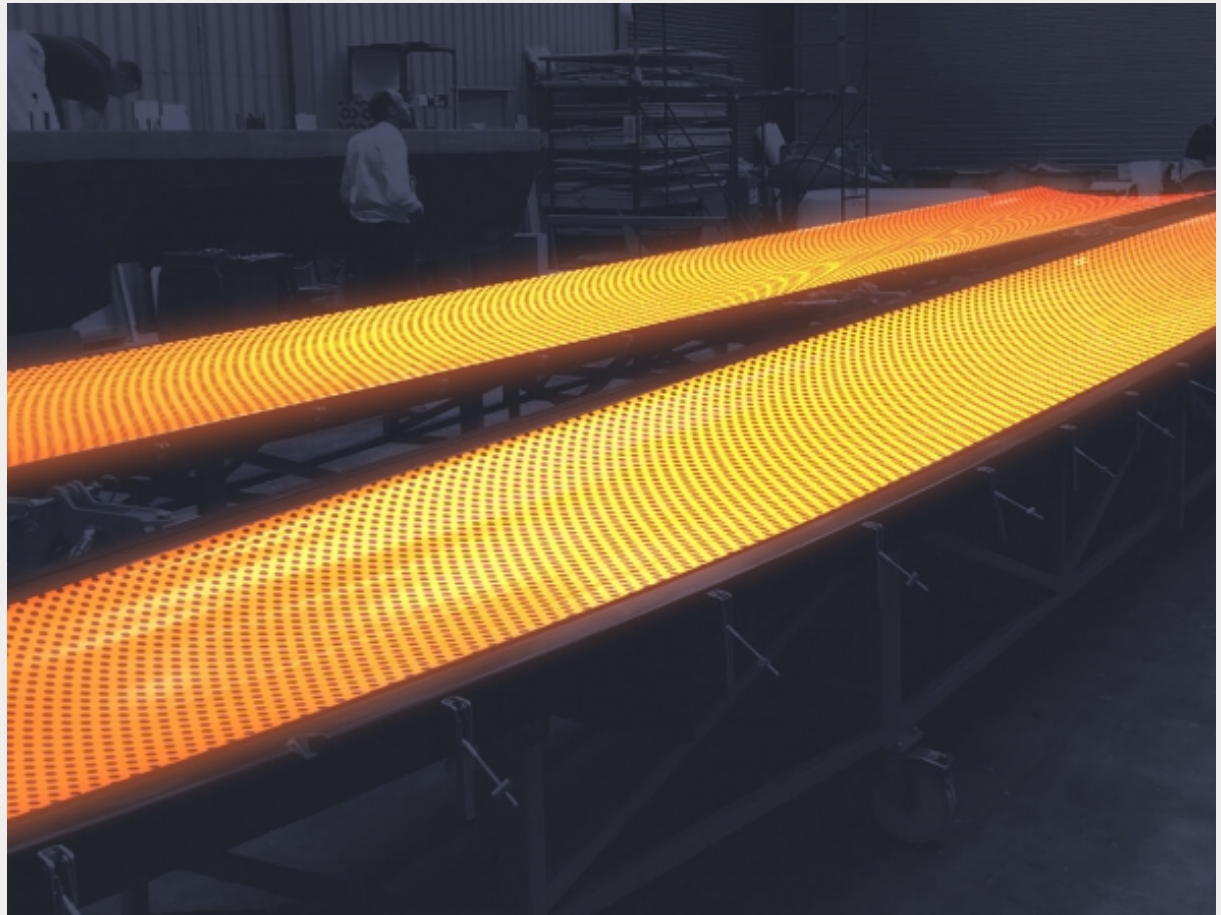
**A 0.3 mm thin carbon film heater which provides unbeatable heat.**

**PowerFabric “Plus”** is a flexible textile which can supply higher power and temperatures than the standard **PowerFabric**.

It is very useful where large heated areas need to be controlled accurately with minimum zones.

It is versatile and can be applied to a large range of applications from de-icing of wind blades and heating of railcar floors, to heating of mould tools where a high performance heating system is required.

It has very good electrical/flammability properties and meets the requirements of UL 499.



**DISCLAIMER OF LIABILITY:** This information is offered solely as a guide in material selection. We believe this information to be reliable, but do not guarantee its applicability to the users process or assume any liability arising out of its use or performance. The user, by accepting the product described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production. It is important for the user to determine the properties of its own commercial compounds when using this or any other material. LaminaHeat makes no warranty of any kind, express or implied, including those of merchantability and fitness for a specific purpose. Statements of this Data Sheet shall not be construed as representations of warranties or as inducements to infringe any patent or violate any law, safety code or insurance regulation.

# PowerFabric "Plus"

## Data Sheet

### ENCAPSULATING MATRIX

(Standard)

	Physical Properties	Temperature max.
E GLASS FABRIC	<ul style="list-style-type: none"> <li>Flexible</li> <li>Non-Perforated</li> </ul>	180°C - 360°F
E GLASS FABRIC	<ul style="list-style-type: none"> <li>Ultra Flexible</li> <li>Perforated</li> </ul>	180°C - 360°F

### MECHANICAL DATA

Heat conductor thickness	$\mu\text{m}$	100-150
Density	$\text{g/m}^3$	1.8
Max. Tensile Strength	Mpa	250 Warp Directen
Elongation at break	%	4.8
Modulus of Tension	Gpa	6



### Dimensional Properties

Total Width	mm	900	600	450	225
	inch.	35.4	23.6	17.7	8.9
Heating Width	mm	850	550	400	175
	inch.	33.5	21.7	15.7	6.9
Max. Length	m	500	500	500	500
Weight	$\text{g/m}^2$	290	290	290	290
Thickness	$\mu\text{m}$	280	280	280	280

### Electrical and Physical Properties

		Non-Perforated	Perforated
Resistance	$\Omega/\text{m}^2$	4-37 +/- 7%	8 - 134 +/- 7%
Resistance/ Lenght	$\Omega/\text{mt}$	0.5-37.0 +/- 7%	1.0-134 +/- 7%
Range of use	Volt	0-120 vDC & 0-400 vAC	
Power	$\text{kW/m}^2$	Up to 15.0	Up to 15.0
	$\text{W/inch}^2$	Up to 9.8	Up to 9.8

- Typical temperature application: 0°C to 180°C or 32°F to 350°F
- Surface insulation (Dielectric strength) UL 499>1KV (0-5KV)\*
- Cross Bar Copper / Typical Cross section: 20 mm x 0.035 mm
- Open perforated area: 20%
- Flammability: UL 499 (PASS)



(\*Combined with woven glass epoxy 1.5 mm thick)