

20301H Carbon Veil

20301H is a customisable range of highly porous nonwoven veils which are produced from short chopped engineered fibres. These materials have been specifically developed for use in advanced composite structures and are used in a variety of industries worldwide, including aerospace, defence, automotive, construction, industrial, consumer electronics and energy.



KEY BENEFITS

The key benefits of 20301H nonwovens include; excellent resin uptake, tuneable properties and exceptionally even fibre distribution. This makes 20301H the ideal candidate for providing a high quality surface finish and effective surface engineering of composites, as well as aiding fabrication through acting as a lightweight support or carrier.

MATERIAL COMPOSITION



DESCRIPTION:	Wet-laid nonwoven carbon fibre veil
FIBRE TYPE:	PAN Carbon
FIBRE LENGTH:	6 mm / 0.25" & 12 mm / 0.5"
FIBRE DIAMETER:	7 µm
BINDER TYPE:	PVA (poly vinyl alcohol)



KEY PROPERTIES

- Electrical conductivity
- High temperature resistance
- High thermal stability
- EMI shielding
- Static dissipation
- Chemical resistance

PROCESS CAPABILITY



Suitable for all common composite manufacturing techniques including:

- RTM
- RIM
- Compression moulding
- Filament winding
- Hand lay-up
- Vacuum infusion
- Pultrusion



TYPICAL APPLICATIONS

Surfacing veils for composites, adhesive carriers and supports, EMI shielding of composite enclosures, resistive heating, static control in assembly areas, use in fuel cell assemblies.



MATERIAL PROPERTIES

Areal Weight	g/m ²	8	10	17	20	30	34
	oz/yd ²	0.2	0.3	0.5	0.6	0.9	1.0
Thickness at 10 kPa/(1.45lb/in ³)	mm	0.12	0.14	0.21	0.24	0.37	0.41
	mil	5	6	8	9	15	16
MD Tensile Strength	N/15mm	14	18	31	36	54	61
	lb/in	5	7	12	14	21	23
CD Tensile Strength	N/15mm	7	9	15	18	27	31
	lb/in	2.6	3.4	5.7	6.8	10.3	11.8
Typical Surface Resistance**	ohm/sq	5 - 25					

The values shown in the table are the typical surface resistance range for this material. If you require a specific surface resistance please contact us - we have the experience and capability to design and manufacture material to deliver a specific level of surface resistance and would welcome the opportunity to discuss this.

* The data in the table represents indicative values only. The user must be satisfied that the product is entirely suitable for the intended application.

** Surface resistance is measured using a Vermason 75mm square contact block. The contact block is placed on a sample measuring 10cm x 10cm and a 1.0kg deadweights



MATERIAL SUPPLY

Supply Form		Continuous Rolls
Max Roll Width	mm	2100
Min Roll Width	mm	10
Other Supply Forms		Sheets and cut shapes



ACCREDITATIONS

We provide assurance that all 20301H materials are of the highest possible quality and our manufacturing processes are accredited to BS EN (AS) 9100: 2018 Global Aerospace Quality Standard, ISO 9001 : 2015 Quality Standard, ISO 14001 : 2015 Environmental Management and the OHSAS 18001 : 2007 Occupational Health & Safety Standard.

