



# Weldtex

A conductive element is an essential component in the bonding layer of dual laminate FRP composite storage and reaction vessels. Placed immediately behind the weld line the conductive element allows the inspection of the integrity of welds in the thermoplastic liner using "spark testing" methods. Spark testing is generally achieved using a hand held high voltage high frequency probe with voltage levels set between 10000 and 20000 volts. The occurrence of a spark between the probe and the conductive element indicates a pin hole or other fault in the weld integrity.

There are 4 main methods of achieving the conductive element. These are:

- Aluminium foil behind the weld joint
- A graphite loaded resin putty behind the weld joints
- Sprinkling graphite talc onto the resin-wetted joints
- The use of a conductive veil directly behind the joints

Of these the use of a conductive veil is by far the simplest, quickest, cleanest and most reliable.

Benefits of conductive veil are:

- Low cost
- Quick and easy to apply
- Clean - no health and safety hazards from handling or mixing of carbon black or graphite talc
- No effect on final laminate properties
- Fully compatible with all resin systems
- Fully compatible with all reinforcing laminates
- Light weight
- Precise width and thickness
- Consistent conductivity
- Operator independent
- Effective for the whole life of the vessel



**Weldtex** is a PAN based carbon fibre tape designed specifically for this application. Available in convenient rolls pre slit to precise width the nominal technical specification of **Weldtex** is given below:-

| Properties           |                                      |
|----------------------|--------------------------------------|
| Areal Weight         | 20-25g/m <sup>2</sup>                |
| Thickness            | 0.20mm                               |
| Tensile strength     | 120N/50mm                            |
| Resistivity          | 5-10Ω/                               |
| Binder compatibility | Insoluble in all major resin systems |
| Tape width           | 25 or 33mm                           |
| Packing Details      |                                      |
| Roll length          | 250m                                 |
| Centre size          | 76mm                                 |
| Rolls/box            | 5, 10 or 20                          |

The data contained herein are nominal and are not intended to be a guaranteed specification  
The user must be satisfied that the product is entirely suitable for the purpose

CHM Composites Ltd | Office 5 | Business Development Centre | Turners Hill Road Business Park | Craven Arms | SY7 8DZ | UK

T: + 44 (0) 797 7319753

E: [info@chmcomposites.com](mailto:info@chmcomposites.com) | W: [www.chmcomposites.com](http://www.chmcomposites.com)

Registered company 5703965