

Engineered Yarns

With expertise in a wide range of high performance raw materials and yarn processing techniques, Tilsatec excels in the provision of engineered textile solutions for industrial application.

In addition to manufacturing yarn and fabric used in the Rhino range of personal protective equipment, Tilsatec specialises in the design and manufacture of complex blends of materials for the following applications:

- Cut, slash and puncture resistance
- Thermal protection and heat management
- Flame resistance
- Moisture and water management
- Dissipation of static electricity and electro-magnetic shielding

Composites

Textile composite materials consist of a polymer matrix (thermoplastic or thermoset) combined with a textile reinforcement. Using a unique process, Tilsatec have specific expertise in the design and manufacture of hybrid yarns with a range of reinforcing fibres for use in a variety of composite forming and manufacturing processes.

The first generation of high performance composite materials made from completely biodegradable natural fibre reinforced plastics has been produced by a UK-based consortium, using yarns manufactured by Tilsatec. These fabric-based materials are believed to be the first of their kind, using long, aligned natural fibres to reinforce naturally derived plastics.

This work is being undertaken as part of COMBINE, a UK based collaborative project co-funded by the Technology Strategy Board, whose objectives are to develop high performance bio-derived composites for structural applications.

For further information please visit www.combineproject.org.uk .