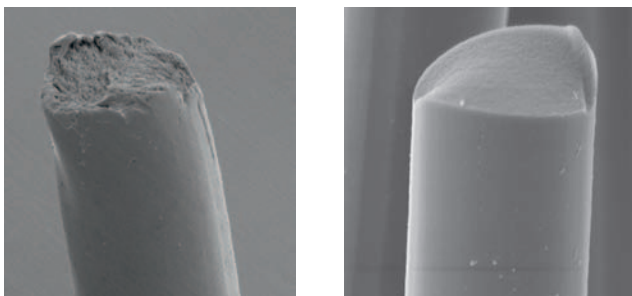




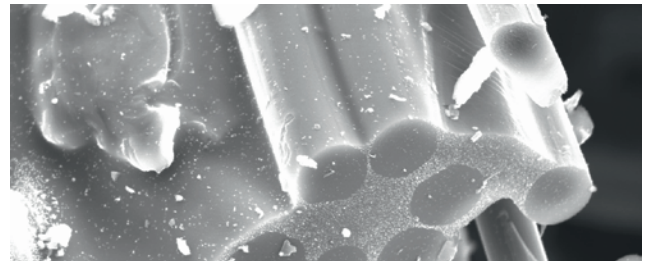
## High performance for low thermal conductivity

TENCEL® is a high purity starting material for the production of low thermal conductivity carbon fibers or high internal surface area activated carbon fibers.

Cellulosic fibers are well established precursor materials for carbon fiber manufacture. They have been utilized from the earliest days of the carbon fiber industry. The new age fiber TENCEL® provides exceptional purity and performance demanded of carbon fiber precursors in the 21<sup>st</sup> Century.



TENCEL® - Before and after carbonization



Carbon bonded carbonized TENCEL®

Activated carbon fibers made from TENCEL® exhibit a very high inner surface area (BET value). The fibrillar nature of TENCEL® allows small molecules to access deep into the inner structure of the activated fiber, enabling BET values to be up to 40% higher than those of other carbonized cellulosic fibers.

Carbonization of TENCEL® can be carried out under comparable conditions to traditional cellulosic precursors. TENCEL® exhibits exceptionally low metal ion impurity levels. This is essential in the production of high thermal insulation performance carbon fibers.

TENCEL® is available in a range of different titers from 1.4 dtex to 3.3 dtex. The staple grades range from 38 mm to 51 mm. In addition, there are Short Cut grades available at lengths from 12 mm down to 2 mm.

The fiber can be carbonized either directly in fiber form or from a textile or nonwoven fabric.

### Main application areas

Carbon fibers manufactured from TENCEL® precursor exhibit extremely low thermal conductivity. This makes TENCEL® the ideal choice for high temperature resistant applications such as flexible insulation fabrics and rigid furnace linings and supports.

In rigid insulation applications, the carbonized fibers are used in carbon-carbon composites or carbon bonded carbon fiber (CBCF) materials.

Contact us today to learn how TENCEL® can be used in your carbon fiber precursor application.

