

## TPC—CoPP/PP Bicomponent Fiber

ES FIBERVISIONS utilizes advanced knowhow and technology to make a fiber of special characteristics for special applications.

The TPC fiber consists of 100% PP raw materials, i.e. a co-polypropylene sheath and a polypropylene core.

The TPC fiber, thereby, has a certain difference in melting point between the sheath and the core.

Using this fiber, the customers are able to obtain a lofty (bulky) throughair bonded fabric which is not available with normal PP fibers.

This fiber can be mixed with other PP fibers and the result is better heat-sealing performance and lower process temperatures.

This fiber also has good heat sealable properties with PP-carded fabrics, PP-spunbond fabrics, or any other materials made of PP.

The fabric made of TPC or TPC fibers can be reclaimed into PP granulates which is not possible with PE/PP or PE/PET bicomponent fibers; properties well demanded in large industries with a focus on recycling (e.g. the automotive industry).

# TPC Fiber Properties (typical values)\*

Dtex: 1.8 - 20.0 dtex

Tensile Strength: 2.0 - 2.8 cN/dtex

Elongation: 90 - 150%

Fiber Length: 38 - 75 mm

Crimp Frequency: 50 - 90/10 cm

Spin Finish: 0.3 - 0.5%

#### Melting Point;

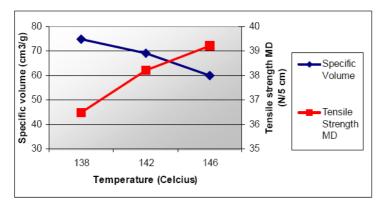
of co-polypropylene

sheath 130°C

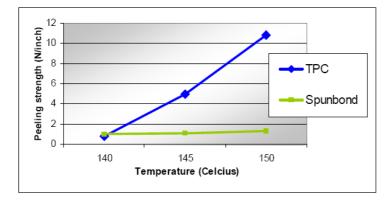
of polypropylene core 161°C

Polyolefin fibers consist of 99% carbon and hydrogen. The remaining 1% consist of water and applied spin finish. The fiber bales are protected with polyolefin foil and closed with polyester straps. The product and the packaging materials are suitable for recycling and combustion. Inhouse waste should be kept clean to facilitate direct recycling. In disposal of any waste, be certain all applicable regulations are met. For further information contact your ES FIBERVISIONS representative.

### Figure: Through-air Bonded Nonwovens : Specific Volume



#### Figure: Heatsealing Strength of TPC vs PP Spunbond Fabric



(Internal Chisso Test Method) Typical values were obtained at Chisso Fiber Technical Center)

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