

# Twisted felting needle

The Twisted felting needle with its twisted working part is particularly suitable for the manufacture of end products with high tear strength.

## Characteristics and special features:

- Defined twist of the working part
- Equilaterally formed triangular working part
- Barb dimensions identical across all the edges
- Traditional number of barbs: 2 barbs per edge
- Modified barb arrangement on the working part compared to the standard felting needle

## Availability

Gauges: 36–42 gauge  
Needle lengths: 3", 3.5"  
Barb shape: RF

Other working part geometries, gauges, barb shapes and needle lengths on request

## Fields of application:

- Automotive sector (visible areas)
- Filtration



Luggage compartment lining



Filter hose

# GROZ-BECKERT

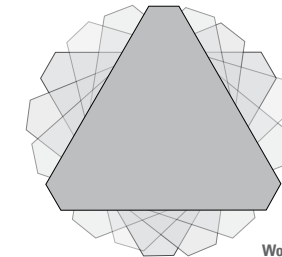
## Groz-Beckert KG

Parkweg 2, 72458 Albstadt, Germany

Phone +49 7431 10-0

contact-nonwovens@groz-beckert.com

www.groz-beckert.com



Working part cross-section



## Benefits:

- More efficient needling due to higher fiber transportation
- Improved tensile strength and better isotropic properties (MD:CD ratio) of the end product due to modified barb arrangement
- Optimized surface quality of the end product
- Higher production speeds possible due to reduced penetration density
- Good compaction of the non-woven fabric
- Compared to standard felting needles, the twisted working part does not cause any detrimental bending strength properties.
- Higher degree of splitting when using microfibers

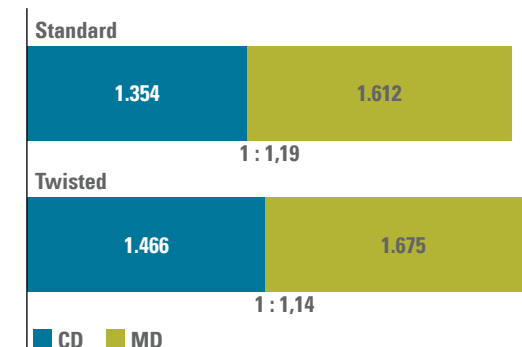
## Needling efficiency

The Twisted felting needle demonstrates up to 10 % higher mechanical work compared to a standard felting needle with the same barb dimensions. This results in improved fiber transport.



## Tensile strength

The tensile strength levels of the Twisted felting needles are up to 8 % higher in the MD (machine direction) and 4 % higher in the CD (cross direction) compared to standard felting needles. This also brings about an improvement of the MD:CD tear strength ratio (isotropy).



## Fiber transport

Fiber transport is substantially higher for the Twisted felting needle (right) compared to the standard felting needle (left). The classical black and white test makes the difference visible.



## Degree of splitting

The modified barb positioning of the Twisted felting needle demonstrates good splitting characteristics, particularly for products in the higher weight ranges.

