

# High-performance doffer wires for cotton and man-made fibers

D40-30-52C and D40-30-52C CBF for high production output and better yarn quality

With increasingly demanding short staple carding applications, the market requests more competitive carding products that can result in better sliver and yarn quality under high production output.

Groz-Beckert supports this trend with dedicated efforts in research and development to meet the needs of the most demanding carding applications in the spinning industry. With this in mind, D40-30-52C was developed for both cotton and man-made fiber applications.

The special geometry and high teeth/inch<sup>2</sup> (PPSI) result in a significantly better yarn quality with regard to yarn imperfections.

## Function/mode of action

The fiber transfer from the cylinder to the doffer is a deciding factor for carding quality. At the typical high production output rates, the fiber transfer rate not only has to be sufficiently high, it is also and in particular important for it to be as uniformly high as possible. The finer or the longer the fibers, the higher the selected number of teeth/inch<sup>2</sup> (PPSI) has to be. Significantly fewer trailing fiber hooks occur due to the high tooth density of 520 PPSI, which is reflected directly in the yarn quality in the form of a significant reduction in yarn imperfections.

## Technical features:

- Curved tooth shape
- High density of teeth (PPSI)
- High strength carbon steel
- Tight geometric tolerances

## Customer benefits:

- Improved fiber transfer from cylinder to doffer
- Less fiber damage and lower short fiber content
- Improved yarn quality

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Doffer wire D40-30-52C CBF



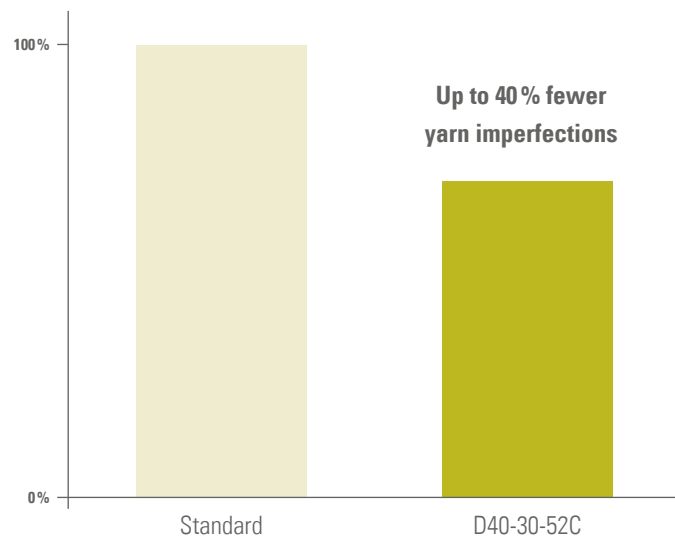
## High efficiency of carding machines with D40-30-52C CBF

D40-30-52C is also available with CBF finishing. The D40-30-52C CBF doffer wire features a completely oxide scale-free surface. The special wire design in combination with the surface properties of the D40-30-52C CBF wires produce a self-cleaning effect which results in high efficiency of the card. The high surface quality prevents accumulation of fibers/impurities on the doffer.

D40-30-52C and D40-30-52C CBF have been tested extensively in the market for both man-made and cotton fiber applications with positive results:

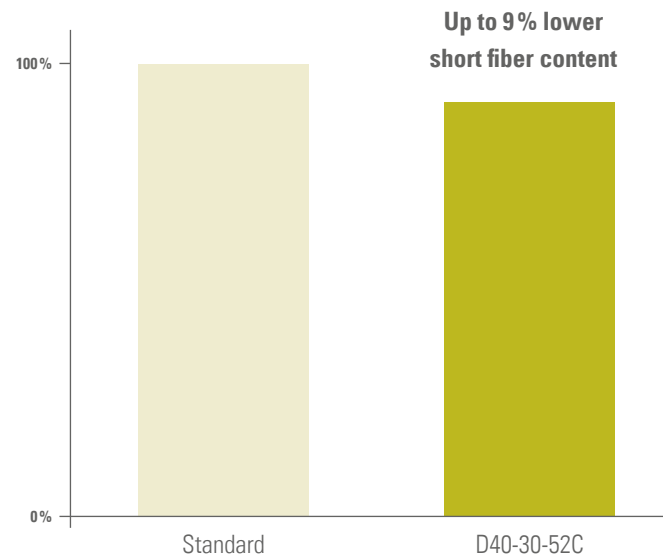
### Man-made fiber applications

#### IPI\*-values

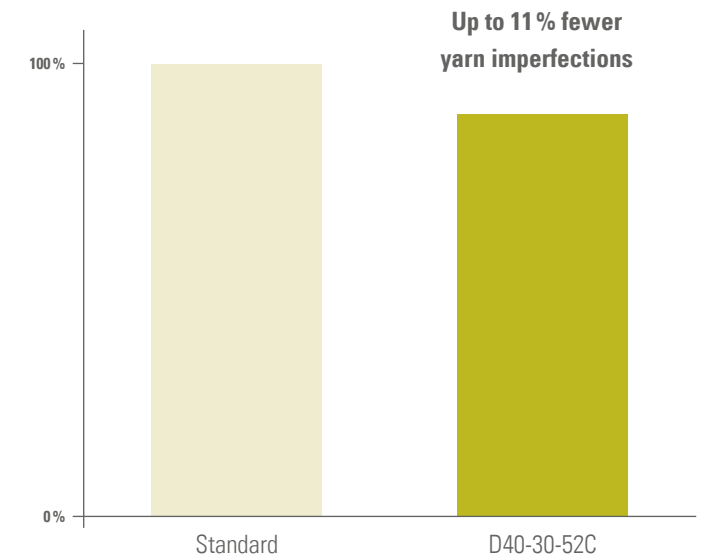


### Cotton fiber applications

#### Short fiber content



#### IPI\*-values



\*IPI: Imperfection Indicator

The test results show that less fiber damage and a lower short fiber content are generated in the carding due to the improved fiber transfer from cylinder to doffer and that the yarn quality can be notably improved thanks to the improved fiber dynamics of the D40-30-52C.