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DREF2000-Yarns
DREF-Hybridyarns
DREF-Multicomponent Yarns
DREF-Coreyarns

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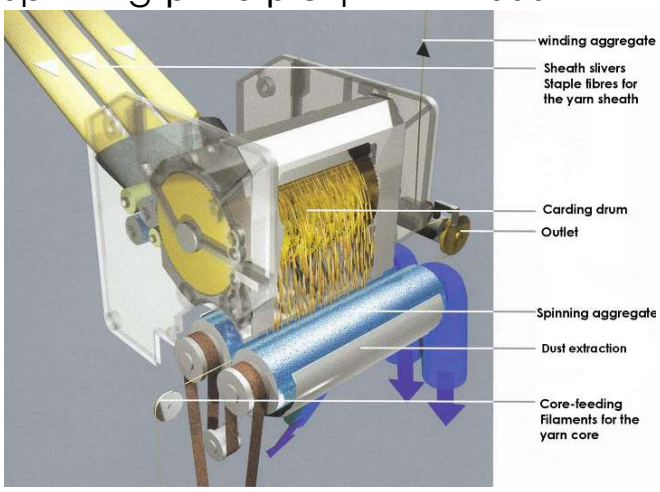
DREF hybridyarns / DREF yarns

If one creates out of 2 or more single yarn components a new yarn type, it is called hybrid yarn. Therewith it is possible to combine good properties and minimize worse properties of raw materials. For specific purposes therefore yarns can be made to measue.

The DREF spinning system, which was invented in 1973 by Dr. Ernst Fehrer, makes it possible to spinn yarns with a defined core/sheath structure. A centric core filament (i.g. out of glass, metallic, aramid, polypropylen) is completly covered by staple fibers (i.g. aramid, polyamid, polypropylen). It is also possible to feed 2 or more core filaments. Different staple fiber qualities for the sheath could be fed blended or used to reach a yarn construction in layers. But it is also possible to spin yarns without a core filament (e.g. filter cartridge or mop yarns).

Spinning principle | DREF 2000



Source : Dr. Fehrer AG, Linz

Yarn specifications:

Yarn count	Nm 0,5 to Nm 25 / 2000 tex to 40 tex
Core filaments	glass, metallic, aramides, PA, PES, PP and also combined
Sheath fibers Also blends and regererated fibres	Natural fibers (cotton, wool,..) Chemical fibers (PA, PAN, PES, PP,CV, MOD, LYC,...) High performance fibers (Aramide, HPPE, FR-Viscose, PTFE, Carbon, PBO ,..)
Twisted yarns	until 3-plied

DREF-High-Tech yarns for :

- Composites
- Transport-/conveyor belts
- Flame und heat proof woven and knitted fabrics
- Cut proof woven and knitted fabrics
- Asbestos substitute
- Filter cartridges / fabrics
- Secondary carpet backings
- Filler yarns
- Backing fabrics
- Canvas fabrics
- Flame retardent seat coverings and carpets

Fischer Tech Garne GmbH produces your specific yarns according your own specifications and wishes. You will find a few product examples for DREF-core yarns and their properties on the following pages.

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Hybrid yarns for reinforced plastics

Example :

Nm 4/1 - 250 tex

Core Glass filament
Sheath Polyester

Yarn properties :

- Core/Sheath structure with centric position of the reinforcing filament
- Zero-twisted reinforeced filament gives best strengh results
- Definable fiber matrix proportion
- Protection of the reinforcing filament through the sheath fibers

Hybrid yarns for liquid filter cartridges

Example :

Nm 1,2/1 –833 tex

Core None
Sheath PP-fibers F.D.A.

Yarn properties :

- Huddle fiber arangement for best filter action
- High elongation values
- Long yarn length knotless
- Uniform yarn with high tensile strength

Hybrid yarns for secondary carpet backings

Example :

Nm 5,1/1 - 196 tex

Core PP tape
Sheath PP fibers
UV stabilized

Yarn properties :

- Steady high tensile strength
- High uniformity of the yarn
- Long knotless length of the yarn
- Good non-rotting properties
- High chemical resistance
- Good thermal transfer
- Dust free product
- Electric insulating
- High stability for carpets
- Good dimension stability for carpets

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Hybrid yarns for heat proof woven and knitted fabrics

Example :

Nm 8/1 - 125 tex

Core Glass filament
Sheath Para-aramide/
FR-Viscose

Yarn properties :

- Flame retardant
- High temperature resistance
- High tear and abrasion resistance
- Good wearing comfort
- Good care properties
- Skin friendly

Hybrid yarns for cut proof woven and knitted fabrics

Example :

Nm 10/1 - 100 tex

Core Metallic wire
Sheath Para-aramide
fibers

Yarn properties :

- High cut resistance
- Good wearing comfort
- High dimension stability

Hybrid yarns for asbestos substitutes

Example :

Nm 4/1 - 250 tex

Core 1 Glass filament
Core 2 Metall wire
Sheath Para-aramide/
Preox fibers

Yarn properties :

- High yarn volume
- Good temperature resistance
- High tensile strength
- Low elongation

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130 years spinning experience

In 1875 the woollen mill Fischer was founded to produce loden cloth and hand-knitting yarns out of the sheeps wool around the area. In 1950 the weaving and finishing department was closed. Then the focus was placed on hand-knitting yarns. They were spun out of clean import wool from Australia, New Zealand or South America. After this point the production was increased and enlarged step-by-step.

Today the well known hand-knitting yarn distributors in the european community are customers.

In 2005 the decision was taken to found a seperate company for the technical yarns part, which was named Fischer Tech Garne.

Even after 130 years the guiding principle applies for now:

Producing good quality yarns for reasonable prices with high reliability!

Location of the mill

The spinning mill is located in the 3 country corner Austria, Germany and Switzerland in the nice valley called „Bregenzerwald“.

The village Bezau is well connected to the main traffic ways. Therefore even far away customers in Europe can be delivered in a short time period.