Fibres (2 A)

Plant Fibres

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Definition	Plant fibres consist mainly of cellulose. There are subtropical or tropical fibre plants such as cotton, jute and ramie, or domestic ones such as flax and hemp.
Special Features	The biomolecule cellulose for man-made fibres is mainly obtained from fast-growing wood species such as eucalyptus, pine, bamboo and beech wood as pulp. By means of chemical-physical spinning processes, the cellulose is brought into solution and made spinnable in this way. Cellulose fibres absorb moisture very well, swell strongly and can be dyed in brilliant colours. They are also very kind to the skin. They are processed as filaments (continuous fibres) or spun fibres.
Function	Cellulose fibres are often used for underwear and nightwear, because they are very good at absorbing body moisture and are very comfortable to wear on the skin.
?!	Did you know that the wood used in the production of cellulose fibres today comes mainly from sustainable forestry?

Fibres (2 B)

Animal Fibres

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Definition	Animal fibres consist mainly of protein. Sheep's wool comes mainly from Australia, China and New Zealand. Silk comes from China, India and other Asian countries.
Special Features	Animal fibres have a very complex chemical structure. Wool naturally curls and warms, it is elastic and hardly wrinkles. The wool fibre absorbs water vapor in its fibre trunk but repels water with its outer cuticle. Like wool, silk is wrinkle-resistant, but very sensitive to moisture. Its smooth surface gives it a noble shine. It is the only natural continuous fibre that we use in textiles.
Function	Sheep's wool, goat's hair and silk are the most commonly used animal fibres in clothing. High-quality winter clothing is made of fine animal hair such as alpaca, cashmere, or virgin wool, sheared from live sheep. Silk is used for luxurious clothing and home textiles.
?!	Did you know that a sheep provides up to 4.5 kg of wool per year? About six sweaters can be made from this.

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Fibres (2 C)

Man-made Cellulosic Fibres

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Definition	The man-made fibres viscose, modal and lyocell are the most widely used fibres based on the natural polymer cellulose.
Special Features	Their applications range from traditional products such as fishing nets to modern high-tech textiles. These include textiles in construction technology, agricultural technology and landscaping, industrial textiles such as filters and medical textiles. In the automotive and aerospace industries, technical textiles are found not only in the interior but also the bodywork of vehicles.
Function	Their applications range from traditional products such as fishing nets to modern high-tech textiles. These include textiles in construction technology, agricultural technology and landscaping, industrial textiles such as filters and medical textiles. In the automotive and aerospace industries, technical textiles are found not only in the interior but also the bodywork of vehicles.
?!	Did you know that so-called high-performance fibres with special physical and chemical properties are used for technical textiles?

Fibres (2 D)

Synthetic Fibres

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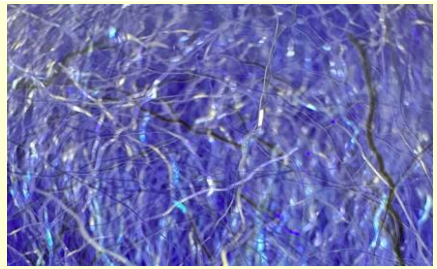

Definition	Synthetic man-made fibres such as polyester, polyamides, polyacrylic, polypropylene and elastane are produced worldwide. Their raw materials are mainly obtained from petroleum and are formed by stringing together many (= poly) chain molecules of carbon, water, oxygen, and other elements.
Special Features	Synthetic man-made fibres can be very well adapted in their property profile to the desired area of application. They are fibres made to measure. They absorb little moisture, so they dry quickly and are easy to care for, but they become statically charged. They are light, hard-wearing, retain their shape, and hardly wrinkle. Polyester, polyamides, and polypropylene deform when exposed to heat; they are thermoplastic.
Function	Synthetic fibres are found in all clothing segments - especially in sportswear and corsetry - as well as in home textiles and as high-tech fibres for technical textiles. They are frequently blended with natural fibres.
?!	Did you know that polyester is the world's largest fibre by volume, with well over 50% of the market?

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