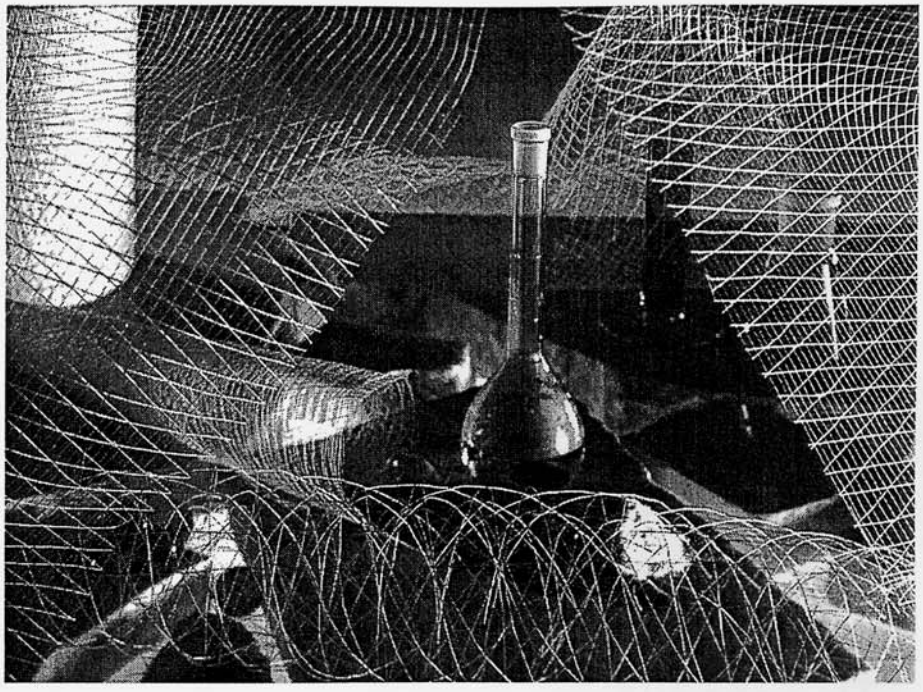
Diagonal Laid Scrims for Technical Applications



The inconspicuous components of products and composite materials are often responsible for their performance. On account of their physical properties, BAFA® -laid scrims represent highly specialised reinforcements for technical applications.

Both natural as well as man-made fibre yarns can be processed in all standard titres. With an increasing sensitivity of the market to ecological compatibility and the desire for recyclable products, the demand for sustainable raw products is ever increasing. Preferred today are plant fibres such as cotton, jute, flax or ramie. Owing to its very high tensile strength of about 25 cN/tex at about 2 % elongation, flax is a material that is in high demand. Because of their attractive price/performance ratio, cellulose-based chemical fibres are interesting. Polyester as a high-strength, low-shrink, extensible and lightfast raw material, as well as glass with its high tensile strength, inflammability and water-resistance, complete the range. Important are high-tech fibres such as aramides, which are used wherever high strength in combination with heat and flame-resistance are required. The process also allows a material mix in warp and weft, with exact adjustment to the final product.

Construction

The number of the longitudinal and cross threads determine a more or less open meshed appearance. For the product properties, the diagonal weft thread layer is decisive. In this way, the diagonal weft yarn position creates a star-shaped tensile improvement in at least six direction - and not four as in the case of right-angled structures.

Binders

Selection of the binders depends on the particular purpose. They are heat-sealable, waterproof, light and boilfast and unaffected by cleaning, flame-retardant, HF weldable, rot-resistant and soft or hard in handle.

As a result of the high variation width, newer fields of application could be developed. In the building sector, flexibility and resistance are increasingly in demand, e.g. for new forms of textile roofing. BAFA® -laid scrims are used for the reinforcement of aluminium foils and mineral fibre boards for insulation. In living and working areas, the under sided bonding of mosaic parquet with diagonal BAFA® -laid scrims facilitate installation. Carpet tiles with a glass structure in the secondary backing are particularly dimensionally stable. Application examples in the area of industry are textile surface products for reinforcement purposes (foam material, punched parts), anti-static textiles or substrates for coating, foil reinforcement and rubber coating. BAFA® -laid scrims for higher strengths are also used for nonwovens. According to the latest market studies, disposable nonwovens are of interest particularly in the medical sector. In the automotive industry, the trend is towards higher safety and economy. BAFA® -laid scrims for door linings and headliners have proved highly efficient. New, innovative solutions are offered for roof linings in automobiles. Great potential exists in the area of packaging. Envelopes and adhesive tapes with textile reinforcement have become standard in the logistics business, due to their low weight and good recycling properties. In the area of personal protection, BAFA® -laid scrims can offer reinforcement and inflammability for the equipment for security services and military.

Stand 4.1 D19 (7846)

Webbings with Integrated Optical Fibres

Rubans Gallant of France will emphasize its ability to weave both tapes and webbings in widths from 1 up to 200mm. The company is using different manufacturing and production techniques including flat and tubular weaving, finishing treatments, cutting and perforating of all kinds, conditioning, coating and transfers.

Some innovations likely to be featured at the Frankfurt event are

a) Webbings integrating treated optical fibers to produce lighting straps.

b) A collection of webbings specially designed to complete some concepts in the field of:

Heating devices (showing a heating harness to wear under a coat or jacket),

Eelectro magnetic shields, integrating metallic yarns, stainless steel, nickel covered polyamid yarns, covered copper multifilament yarns

c) The company has developed a concept called äusing webbings" for safe handling of light automotive parts, like dashboards, door panels, sunroofs, a.s.o. (7886) Booth 4.1.G.64