

Send for reinforcements

It is the inconspicuous components of many products and composite materials that are often responsible for their performance, says Germany's Bafatex.

Because of their physical properties, the company's BAFA-laid scrim represents highly specialised reinforcements for technical applications.

Bafatex developed a process back in the 1950s in which warp and weft yarns are not joined mechanically, but only cross each other and are then subsequently fixed at the crossing points with binders.

Nowadays, the company's scrim is made employing a wide range of both natural and man-made fibre yarns, with plant fibres such as cotton, jute, flax or ramie becoming more popular.

Because of its very high tensile strength of about 25 cN/tex at about 2% elongation, flax is in high demand.

Because of their attractive price/performance ratio, cellulose-based chemical fibres are also often employed, while polyester is used as a high-strength, low-shrink, extensible and lightfast raw material, and glass for its high tensile strength, inflammability and water-resistance. Aramids are used wherever high strength in combination with heat and flame-resistance are required. The company's process also allows a material mix in warp and weft, with exact adjustment depending on the final product.

The number of longitudinal and cross threads determines how open the mesh of the scrim is, but a

diagonal weft thread layer in Bafatex scrim is decisive, creating a star-shaped tensile improvement in at least six directions, as opposed to four as in the case of right-angled structures.

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

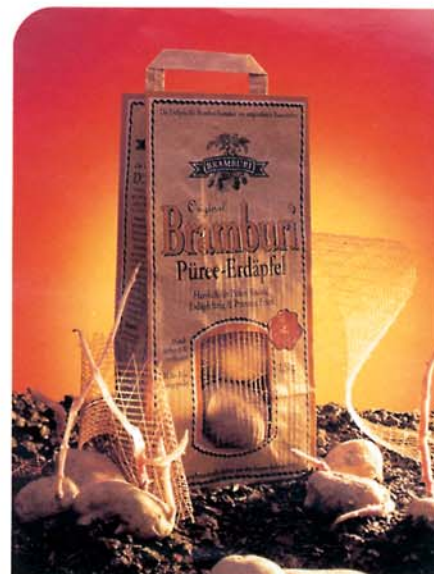
The company believes there could be new applications for its products in fields such as building, industrial, furnishings, packaging and protection

In the building sector, flexibility and resistance are increasingly required for new forms of textile roofing.

BAFA-laid scrim is 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 scrim helps ease 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, anti-static textiles or substrates for coating, foil reinforcement and rubber coating.

BAFA-laid scrim is also used to give nonwovens higher strength.

In automotive, the trend is towards higher safety and economy. BAFA-laid scrim for door linings and headliners have



proved highly efficient and new solutions are offered for roof linings.

In 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, scrim can offer reinforcement and inflammability for equipment for security services and military.

These and many other application examples will be exhibited at Techtexil in Frankfurt next month.

