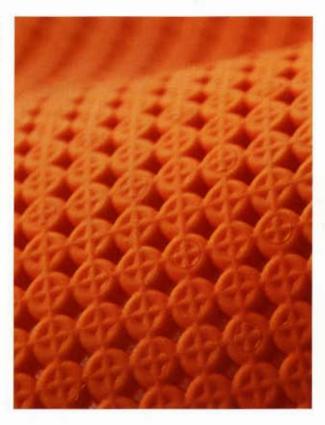
CARPETS & TEXTILES FOR INTERIORS





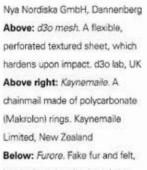






Left: Crivello. A delicate fabric of 70% polyester and 30% viscose. Above: d3o mesh. A flexible,

inspired by stretch metal. Lama Concept, The Netherlands





MATERIA FOUNDER AND CREATIVE DIRECTOR ELS ZIJLSTRA ON ARCHITECTURAL TEXTILES:

In recent years, interest in the functional properties of textile has burgeoned thanks to developments in two areas: smart textiles and nanotechnology.

A stroke of magic would seem to have been involved in the development of 'intelligent' textiles, which change in response to environmental factors like light, temperature, pressure or rubbing. Fabrics switch from smooth to crumpled, roll up or shrink in places. One limitation of these 'smart' additions to textiles is that only a very small amount can be added without adversely affecting the material's mechanical properties. Another possible limitation is the extent to which these active substances are able to withstand the high temperatures and mechanical forces employed in the spinning process.

A second important development is that of nanotechnology which employs extremely tiny particles measuring 1 to 100 nanometres, or extremely thin coatings. Using this technique new functional properties can be added to the base fibres or applied at a later stage to the textile. Possible applications include textiles with self-cleaning properties or with better electrical conductance, textiles that are more wear-, light-, and UV-resistant and textiles in which the absorbency is regulated.

A further development at the microscopic end of the scale are microfibres. These are fibres weighing less than 1 dtex (1 g/10 000 m) which, thanks to their minimal diameter, have a large specific surface per unit of weight, thereby allowing air and water impermeability to be coupled with water vapour permeability and pliability.

Another advanced material is fireproof ceramic textile. The fibres are produced by melting china clay (kaolin) or a combination of aluminium oxide and silica at about 2000 °C. The product of this process is then blown or spun into fibres. Ceramic fibres are good heat conductors and can stand higher temperatures than glass. Gwendolyn Floyd's white Ceramic Table Cloth is scarcely distinguishable from an ordinary cotton or linen tablecloth. Advanced materials or processes originally developed for space travel, military purposes or model buildings, offer designers a wide range of new applications. The phenomenon of technology transfer, whereby materials and techniques developed for a specific purpose are suddenly 'discovered' and applied to a completely different sector, has undoubtedly been boosted by the internet. In the field of textiles, the best source of inspiration for technology transfer is the Techtextil in Frankfurt, one of the biggest trade fairs for technical textiles."