

nanoprotect™

### selfcleaning thanks to nanotechnology

The Greek word for dwarf, nanos has given the technology of the future its name. Nanotechnology covers a broad range of technologies which concern structures and processes that can be measured at nanometre level. A nanometre is one billionth of a metre ( $10^{-9}$  m) and indicates a fringe region where surface characteristics play an increasingly greater role compared with the volume characteristics of the materials. The boundaries of scientific disciplines tend to become blurred in nanotechnology; for example, the range of applications in medicine, physics or chemistry is enormous. However, numerous applications also concern ordinary everyday problems: like the lotus flower, nanoprotect™ generates self-cleaning surfaces on the most varied of materials.

Lotus leaves have a surface which has fine dots arranged on it with a thin wax coating, so that water and dirt cannot adhere - instead they roll off like beads. AG Cilander has now been successful in applying such nano-fine structures to both cotton and synthetic fabrics. As a result the textiles are reliably water- and stain-repellent, but the material remains pleasantly soft unlike conventional fluorocarbon finishing. This effect is very resilient and can be combined with other finishing processes. Cilander currently has people working flat out on combining it with a non-iron finish. Under the nanoprotect™ label, the Cilander company has brought these innovative finishing processes to the market and the reaction has been extremely positive. Various tests have shown how spectacular this finish really is in everyday use. Even honey, ketchup, red wine, hot coffee or blood can simply be rinsed off with water without leaving any residues.

**applications:** shirtings, trousers, ties, .....

**washing instructions:** common detergent  
no softener!  
ironing recommended



**washing resistance:** 20-30 times washing with 60° C  
30-40 times washing with 40° C

