1- Discription of Nano-technology

The prefix "nano" derives from the Greek Word "nanos", which means dwarf. Nano stands for a unit of measurement and marks the billionth part (10^{-9}) of a metre.
Nano-technology is not a new technology, but rather describes a new way of looking at existing technologies.
On the one hand it is about the performance increase of technical, economical and ecological parameters with known products and processes, on the other hand it is about new products and applications which derive from the improvement of existing technologies.
The chemical nano-technology deals with surface structures, of which at least one decisive dimension is measured in nanometre. These are products which have already been used for years, such as colloidal silica solutions.
The formation of sub-molecular structures has now and again a decisive influence on the formation of value-increasing effects which enable completely new property profiles. Only the specific interaction of all components on the textile results in optimised effects.

2- Special finishing BNR

In contrast to the conventional, linear-structured polymers was synthesizes "hyper-branched" polymers, so called dendrimers which are in a position to build-up crystal structures in nano-range. A flexible nano-structure is formed on the textile which produces wash-permanent, water-repellent and highly abrasion-resistant effects.
Depending on the requirements special additives cause an extension of the effects with regard to oil and soil-repellency, resistance to washing / dry cleaning, but also to mechanical abrasion.
The application are water-, oil- and soil-repellent finish of technical or medical protective clothes, automobile, decorative, weatherproof and architectural textiles.
A protective impregnation is in many areas necessary to render the textile more resistant to environmental influences, such as rain, snow, but also oily soilings. Additives incorporated in this product which organise themselves by co-crystallisation with the dendrimers in nano-range enable the highest –level water-, oil- and soil-repellent effects.
This synergism called " Enhanced Nano-Technology" results in an increase in effciency of the total system by a combination of two Nano-components.

Technical Dept.