



Clariant's NanoSphere® - ecology also means economy

Clariant is a global leader in the field of specialty chemicals. Strong business relationships, commitment to outstanding service and wide-ranging application know-how make Clariant a preferred partner for its customers. Clariant is committed to sustainable growth and are represented on five continents by more than 100 Group companies, employing around 20,000 people. Clariant generated sales of more than CHF 8.1 billion in 2008. From vibrant colors in luxury goods, to less-visible additives that enhance the value of industrial and consumer products, their products play a key role in our customers' manufacturing and treatment processes.

Soft furnishings and textiles for institutional use stay clean for longer thanks to modern finishing technology. Which of us is not familiar with that moment of horror: During a fine pasta meal, a splash of tomato sauce lands on the white table cloth, the half glass of red wine sloshes over the new designer sofa or the cappuccino spilled in bed leaves its mark right through the mattress cover. No problem for functional soft furnishings with NanoSphere®.

Because, thanks to the clever self-cleaning effect, upholstery, table linen and even bedclothes and mattresses with NanoSphere® stay clean and attractive for longer. Liquids or other soiling can be quickly and simply mopped off a fabric surface treated with NanoSphere® with a cloth or easily wiped off.

That is not only practical; it also pays off and promotes sustainability, as Jochen Schmidt, Head of Business Line Functional Effects, Clariant International Ltd., explained during his lecture at Heimtextil 2009 in Frankfurt.

Annual water requirement for 36,000 people can easily be saved

Christmas is just over. Many families marked the occasion and often the table linen needed washing although it had only been used once.

With an average water consumption of 50 liters per cycle and, for example 40 million households in Germany, the saving would amount to 2 billion liters if every household could forgo washing its table linen just once during the Christmas season!

This is roughly the equivalent of the water consumption of New York City over 50 days. Or – with an average water consumption of 150 liters in Europe per day and inhabitant - the annual water requirement of 36,000 people could be covered if the whole of Germany did just one wash less.

A clear conscience and money in the till

Because textiles with a NanoSphere® finish need less frequent laundering, and can be washed at lower temperatures,



the savings over the service life of hotel linen, for example, can clearly be seen in the accounts. If the item is laundered 30 times instead of 100, and at 40° instead of 60°, the expenditure on water and electricity is reduced in a sample calculation from 27.8 to 6.8 cent – i.e. the costs per wash drop (calculated without detergent) to a quarter! And the possible savings go even further.

The most modern washing machines achieve a good cleaning result even at 20°C. While a 60°C wash – depending on machine type – requires approximately 1.02 kWh, a 20°C program needs just 0.16 kWh.

This means around 0.86 kWh less which, when the figures are done for Germany alone, represents a reduction of 6.1 million euro, if 40 million households did just one wash at 20°C instead of 60°C.

If this were to happen once a week, the savings would amount to 317 million; if one such low-temperature wash per day were done in each household, over 2 billion euro would be saved a year. These are figures that speak for themselves.

Furthermore, NanoSphere® conforms to the bluesign® Standard. Unlike other textile standards, bluesign® examines all the textile-relevant substances from the very beginning and not just in the finished product.

So dangerous substances don't even get into the production cycle or, where they are necessary, are monitored on the basis of "Best Available Technology" throughout the entire process, in order to guarantee a safe final product.

For NanoSphere®, for example, modern C6 fluorochemicals are used and these are free of PFOS and PFOA (below detection limit). In this textile finish, the consumer finds a product which is state of the art and ecologically safe – even when it comes to the ultimate disposal of the final product.

NanoSphere® is a registered trademark of Schoeller Technologies AG/Switzerland (patent protected technology).

Further information can be obtained from www.textiles.clariant.com and www.nano-sphere.ch ◆