CLOSER TO THE CUSTOMER.

WHAT TEXTILE COMPANIES CAN EXPECT FROM THE CHT GROUP.
What are the current megatrends in the textile industry of tomorrow?
Mobility will change and studies show that the proportion of textiles in future automobiles will double. This places new demands on the textile industry and will represent a significant growth segment. The ageing of the population (Silver Society) and the desire for lasting health will lead to the integration of additional functionalities into clothing and home textiles. Electrical conductivity and medical sensors, for example, already exist today to provide permanent control, and thus safety. The megatrend of lightweight construction will also lead to a significantly higher proportion of textiles. The example of textile concrete shows what possibilities already exist today and this segment is still in the developing phase. The trend towards recyclability is becoming increasingly important in all the above-mentioned trends, which will place further high demands on future textiles and, of course, on the chemicals used, which in many cases make functionality possible in the first place.
‘SUSTAINABILITY IS SO IMPORTANT TO US THAT WE HAVE FIRMLY ANCHORED IT IN OUR CORPORATE VISION.’

Why is sustainability so important to the CHT Group?
Sustainability is so important to us that we have firmly anchored it in our corporate vision. We want to be the most innovative and sustainable speciality chemicals company for the industries we serve today. This includes the textile industry in particular. We are convinced that the frontrunner in sustainability will also be successful in the textile industry. As CHT, we want to make the textile value chain more sustainable and here we work closely together with the brands, retailers and textile mills. We have made it our core task to develop, produce and successfully market sustainable chemicals.

In your opinion, what are the most pressing problems of a sustainable textile industry?
We have many interfaces in the global value chain and each interface has special requirements if we want to act sustainably throughout the chain. As a result, we have to deal with all members within the chain, including brands, retailers and processing companies, in order to achieve maximum sustainable improvements. Since economic factors also play a significant role in each of these stages, it is important to identify potential savings in terms of raw materials, energy, water and time.

‘CHT’S WORLDWIDE TECHNICAL SERVICE IS KNOWN FOR ITS ABILITY TO IMMEDIATELY TAKE CARE OF THE ISSUES AND PROBLEMS OF OUR CUSTOMERS.’

Why would you say CHT is ‘closer’ to the customer?
Our daily work is oriented towards the customer and shapes our actions. We also confront social problems and try to conserve global resources by improving products and processes, as well as minimising the amount of resources used. Here, we have many examples that show that it is possible to save up to 50% of water, energy or time. Our customers want and expect all this from us, and here we work very closely with them. Also, CHT’s worldwide technical service is known for its ability to immediately take care of the issues and problems of our customers. This confirms our long-standing customer loyalty. For me personally, technical customer service is one of CHT’s success factors in textiles, and it can only be further expanded if we work very closely with our customers and very much in line with the markets and their trends.

‘AS CHT, WE WANT TO MAKE THE TEXTILE VALUE CHAIN MORE SUSTAINABLE AND HERE WE WORK CLOSELY WITH THE BRANDS, RETAILERS AND FINISHING COMPANIES.’
Pretreatment and dyeing processes require large quantities of energy and water. CHT can optimise dyeing processes for all fibres. We collaborate with many international partners and offer worldwide on-site support to ensure the best possible solution for them. Using our comprehensive chemical expertise and many years of application know-how, we develop customer-oriented solutions that are optimally tailored to our partners’ production plants and the articles to be manufactured. Because only the perfect interplay of the individual pretreatment and dyeing processes significantly reduces water and energy consumption, shortens process times and saves CO₂.

Making processes more sustainable is what drives the CHT Group. A particular focus of our work is the development of auxiliaries and dyestuffs which, when combined, make textile manufacturing and textile finishing processes more sustainable. Sustainability in the dyeing process is not just a question of products. It depends above all on the individual process steps.

A conventional exhaust dyeing with reactive dyestuffs requires

- More than 50 – 80 l water per kg of cotton
- 10 megajoules of energy (equals approx. 0.3 l of crude oil)
SUSTAINABLE COTTON DYEING

1 PRETREATMENT
2 PRE-WASH & DYEING
3 DYESTUFF
4 SOAPING

MAXIMUM SAVINGS ON PALE AND DARK COLOURS

-29 % Water
-73 % Energy
-33 % Time
-21 % Water
-63 % Energy
-18 % Time

Your benefits
- Shorter processes
- Significant water savings
- Lower energy consumption

With the innovative and groundbreaking 4SUCCESS concept, the CHT Group offers perfectly coordinated process optimisation for the discontinuous pretreatment and dyeing of cellulose fibres. The individual modules have proven themselves in practice and can be combined in a modular way. The perfect interplay of the individual processes can significantly reduce water and energy consumption and allows process optimisation. The innovative BEZAKTIV GO dyestuffs also ensure greater sustainability in the dyeing process. The reactive dyestuffs achieve the highest quality and colour intensity at low dyeing and rinsing temperatures and enable short process times. The 4SUCCESS process thus leads to an efficient dyeing process with an average of 50 % less energy and water consumption compared to conventional processes.

Contact us today and start saving energy, time and water with our high-quality solutions and excellent service! www.cht.com/dyeing
THE CHT GROUP SUPPORTS PARTNERS AND CUSTOMERS WITH EXCELLENT SERVICES. WITH OUR BRAND & RETAIL SERVICE AND ITS BeSo® EFFECTIVE RANGE, WE PROVIDE AN OUTSTANDING CUSTOMER ORIENTATION FOCUSED ON AN OPEN, HONEST AND CLEAR EXCHANGE.’

Today, sound consultation is a key success factor, as the requirements and processes in the textile industry are becoming increasingly complex. Laws, institutions and also end consumers demand transparent products and processes, especially with regard to harmful substances and product safety. Further challenges are increasingly complex supply chains, and the need for optimised production processes with a balanced and sustainable use of raw materials, energy and chemicals to produce the textile effects desired by end consumers, and the customers of the CHT Group. ‘Through in-depth exchange, reliable advice and trusting cooperation with our partners, we are able to identify development trends at a very early stage. This enables us to jointly develop sustainable and tailor-made product solutions,’ Knehr explains. Additionally, the CHT Group has an excellent Brand & Retail Service network, comprehensive knowledge of the textile market, a high level of technical know-how regarding the functionality and performance of CHT products, and offers support in marketing and sales. All this makes the CHT Group a reliable partner at all levels and the perfect link between finishing companies, merchandisers, retailers, brands and, of course, end consumers.

Service and support for textile mills
Our highly skilled and competent experts analyse, advise and support textile mills with the aim of adapting, and thus improving processes. This optimisation begins before the start of production of new product campaigns and collections and, of course, continues during ongoing production. In doing so, it is necessary to comply with the specifications and requirements of the brand and retailer who commissioned the work, and we ensure this through technical support and worldwide service from our side. One of the keys to success is the CHT Group’s in-depth expertise in textile finishing techniques, process and product optimisation as well as our global presence.
Always the best solution for textile effects

The aim of our BeSo® campaign is to position the CHT Group’s expertise in our core markets with end consumers, brands and retailers, trendsetters and also our industrial partners, based on our understanding of the textile value chain. With a strong communication concept, we want to emphasise our actions with regard to the innovative sustainability and excellent performance of our product systems. It is important for us to speak the language of our target group. That is why we focus on clear communication, with distinctive, symbolic imagery and a uniform effect branding.

Eric Knehr, Manager Brand & Retail Service

The BeSo® campaign clearly structures the CHT effect range, so partners and customers can quickly identify the product they want. For example: BeSoCOOL stands for a textile finish with temperature-regulating properties.

‘ONE OF THE KEYS TO SUCCESS IS CHT’S IN-DEPTH EXPERTISE IN TEXTILE FINISHING TECHNIQUES AND PROCESS AND PRODUCT OPTIMISATION.’

For more information on our outstanding BeSoEFFECTIVE range contact us at: www.cht.com/beso
Sustainable lifestyle, urbanisation, mobility, individualisation – these are megatrends that will shape our future. In this context, technical textiles are playing an increasingly important role in a vast variety of applications. As a driving force for sustainable innovative solutions for the future, CHT offers a wide range of high-quality products and services for technical textile applications.

WE BOOST FUNCTIONALITY IN TECHNICAL TEXTILES

Textile adhesive technology
For light composite materials which will give our future more sustainability in the sense of energy efficiency and resource protection.

Chemical coatings for textile concrete reinforcement
Increasing stiffness and bonding properties of glass fibre and carbon structures that are used to make concrete lighter and more resource efficient.

Intelligent and highly functional workwear
We offer professional bespoke solutions for workwear and protective clothing along the whole textile chain – from fibre production to functional coatings.

Intelligently functionalised nonwovens
As one of the very few suppliers that cover the complete chain of textile processes, we are able to offer the smart combination of applied fibre type and production technology, as well as additional functionalisation by intelligent chemical systems to fulfil specific requirements to the nonwoven.


**Competence for products and processes**

Technical textiles are a highly complex topic. The individual functional requirements of manufacturers are highly specific and call for individual product solutions. At the same time, finishing products must be optimally adapted to production facilities in order to guarantee optimum results. CHT offers the necessary expertise that suppliers and manufacturers are looking for in all textile applications.

**Successful partnership for premium brand**

Together with Schmitz Textiles, CHT developed an innovative lamination process to meet the high demands of a premium automobile brand. The challenge was to find the best solution for the extreme performance requirements facing the manufacturer: a convertible top is constantly folded, exposed to environmental influences such as extreme heat, cold or UV radiation. Thus, the folds and seams must be well protected so that the textile does not break. We developed an innovative system based on liquid silicone rubber (LSR) for laminating it.

The silicone offers numerous advantages because it is extremely temperature-resistant (down to –100 °C), UV-stable, highly elastic and flame-retardant, as well as water- and solvent-free. Our newly developed range of LSR liquid silicone elastomers is also ideally suited for use in fully automated industrial processes. We have optimally adapted the solution for our partner, taking into account their in-house technology and manufacturing process, thus increasing their added value.

‘CHT HAS BEEN AN IMPORTANT STRATEGIC DEVELOPMENT PARTNER FOR SCHMITZ TEXTILES FOR MANY YEARS DUE TO THE VERY CLOSE PARTNERSHIP AND CUSTOMER-ORIENTED COOPERATION. THERE IS A CLOSE EXCHANGE ABOUT REQUIREMENTS AND POSSIBILITIES OF REQUIRED PROPERTIES AND FUNCTIONS FOR EXISTING AND NEW ARTICLE GROUPS.’

Ralf Bosse, Manager, Schmitz Textiles
As a responsible chemical company, the CHT Group developed a range of ecologically and economically intelligent innovations based on organic acids that abandons heavy metals and chlorine: organIQ.

In conventional treatment, KMnO₄ is sprayed on the textile to create a ‘used spot’ by local bleaching. However, as a CMR substance, it is very problematic from work safety and ecological points of view. Thomas Aplas, Manager Technical Service Garment, helped develop organIQ in order to replace KMnO₄. ‘In the process, KMnO₄ transforms into manganese dioxide, which has to be neutralised and removed by adding further chemicals that pollute the waste water,’ Aplas explains the problem. The KMnO₄ treatment is usually followed by a stonewash in which a lot of stone abrasion, i.e. sand, gets into the waste water and combines with fibre fluff, detached indigo, etc. to form a kind of sludge. After the stonewash process, the jeans are often brightened with chlorine bleach. This bleaching process also has to be neutralised, which means that additional chemicals that pollute the waste water have to be added.

‘THANKS TO OUR OUTSTANDING CHEMICAL EXPERTISE AND TEXTILE COMPETENCE, WE WERE ABLE TO DEVELOP organIQ AS A HOLISTIC CONCEPT. IT CAN REPLACE OTHER PROCESS STEPS, SUCH AS BLEACHING WITH CHLORINE, OR THE STONE WASHING SYSTEM WHILE PRODUCING THE SAME HIGH-QUALITY FINISH RESULTS AS CONVENTIONAL METHODS.’
ECOLOGICAL JEANS FINISHING

‘organIQ IS A HIGH-QUALITY ALTERNATIVE TO CONVENTIONAL JEANS TREATMENT. IT IS AN INTELLIGENT SYSTEM THAT IS ECOLOGICAL, BUT ALSO FINANCIALLY FEASIBLE AND CAN FULLY REPLACE KMnO₄, CHLORINE BLEACHING LYE AND PUMICE STONES.’

Thomas Aplas, Manager Technical Service Garment

At the same time, it enables enormous cost savings on water and energy. organIQ BLEACH, unlike KMnO₄, does not require expensive neutralisation, but can simply be rinsed out. In addition, it is biodegradable and does not pollute the waste water with toxic substances. This drastically reduces waste water treatment costs. Additionally, we were able to make the organIQ system suitable for extremely water-saving application techniques via fogging systems. Now we can offer an ecological, financially feasible alternative to KMnO₄, chlorine bleaching lye and pumice stones.

Working closely with leading machine manufacturers
The close cooperation with leading machine manufacturers in the garment sector was crucial for making this new, highly ecological system as efficient as possible. Our expertise was key to improving existing fogging technology, so it could be applied on a broader scale. As a result, denim laundries all over the world are increasingly equipped with fogging systems on their washing machines, which contributes to a significant reduction in water consumption and also brings the use of chemical additives into a more controlled and therefore more responsible framework.

‘Every day, more than 2.5 million pairs of jeans are bleached with potassium permanganate. As a result, more than 3 tons of this highly critical substance are emitted into the waste water every day.
With organIQ, the CHT Group offers an alternative that is 100 % organic and 100 % biodegradable.’

OUR INTELLIGENT SOLUTIONS

organIQ BIOPOWER for water-saving and stone-free abrasion
organIQ BLEACH for purely organic bleaching
organIQ NEUTRAL for sustainable neutralisation
For us, sustainability is not only a trend. It is one of our most important core values and goes alongside the innovative strength of CHT. It defines our daily work as well as our strategic focus. The CHT Group has great experience and a deep knowledge of all processes along the complete textile chain. As an innovative and sustainable partner of the textile industry, we are working continuously on the ideas and solutions of tomorrow. Of course, the questions around the circular economy are a major topic, where our R&D is working together with the application experts. Our auxiliaries make textiles last longer and ensure that they are recyclable or biodegradable.

Furthermore, we offer water-based printing pastes and innovative recyclable pigments. We are always looking for new innovative ways to ensure a more sustainable use of resources. How to reduce microplastics is also one of these questions. CHT teams are looking, together with scientists from a research institute in Pozzuoli, Italy, at how the fibre friction could be minimised during the casual household laundry process. That is why the CHT Group is your ideal partner in the textile value chain. We will be pleased to provide you with tailor-made solutions to shape the future – together with you – already today.
CHT offers products that help to reach Cradle to Cradle® standard. We see it as part of our responsibility to help textile manufacturers avoid waste and hazardous substances along the entire textile value chain wherever possible. As part of a ‘Biodegradable Textiles’ pilot project, we have developed innovative recyclable textile printing pastes and pigments that meet the strict criteria of the Cradle to Cradle® Certified™ Gold and Silver Standard.

Microplastics pollution by laundering is a pressing issue that the CHT Group takes very seriously. To help reduce microplastic emissions, we are currently working on solutions to minimize breakage and abrasion in polymer fibres.

CHT provides products for textile finishing that help keep a textile product recyclable. That begins with buying the right raw materials for producing the sustainable product [auxiliaries and dyestuff] to support biodegradability/recyclability of the textile.

PET recycling
CHT provides additives for highly efficient PET cleaning and separating, as well as auxiliaries for spinning preparations for fibre production.

OUR INNOVATIVE SOLUTIONS CONTRIBUTE TO A SUSTAINABLE TEXTILE FUTURE
The CHT Group is represented by 25 companies worldwide with production and sales locations and, with around 2,200 employees, CHT is very close to its customers and markets. As a strong, globally positioned partner, we differentiate ourselves through innovative, customer-oriented product developments, a high standard of quality and outstanding service for our clients. Close cooperation with our partners enables us to identify development trends at an early stage and thus quickly develop tailor-made product and process solutions.

Within the framework of the SCIENCE & SERVICE SOLUTIONS, further innovative products, applications or processes are permanently developed and comprehensive advice is offered. Our worldwide technical service is extremely important to ensure the correct application of the new products. It is not enough just to supply the market with new products, it is also necessary to provide local support and advice in order to make our customers’ processes more efficient and sustainable. Only the added value of our customers confirms that they have achieved an improvement in textile value creation.
THE GOAL OF THE CHT GROUP IS TO BE THE PREFERRED PARTNER AND LEADING REFERENCE FOR SUSTAINABLE CHEMISTRY SOLUTIONS, SUPPORTING ITS CUSTOMERS IN OUR MARKETS, WORLDWIDE.

Dr. Frank Naumann, CEO CHT Group

Current certifications of CHT Germany GmbH
- bluesign®
- ZDHC Value Chain Contributor
- STANDARD 100 by OEKO-TEX®
- Global Organic Textile Standard (GOTS)
- Cradle to Cradle® (EPEA)
- EU eco-label
- Environment: ISO 14001:2015
- Occupational health and safety: OHSAS 18001:2007
- Cosmetics GMP: ISO 22761:2008-12
- Analytical laboratories: ISO 17025:2005