DISCOVER NEW HORIZONS – WACKER TEXTILE FINISHING
Whether applied to non-iron shirts, fragrant laundry, high-quality woolen sweaters, water-repellent functional jackets or towels that are soft yet absorbent, our integrated textile-finishing solutions will tailor your garments and fabrics to your needs.

Powerful Partnership
To succeed on today's textile market you need an effective business partner. Someone who knows exactly what you expect from textiles, whose innovative and efficient textile-finishing products enable you to tap into new markets and gain a competitive lead. Someone who can offer global service and constantly high quality standards. Someone, ultimately, with broad technological expertise and a consistent R&D strategy. In other words, someone who is set up for sustainability.

Customized Effects
WACKER is a leading global silicone producer and has a strong and extensive product portfolio to meet your individual textile-processing needs. Our products create a wide range of effects such as softness, hydrophilicity, dimensional stability, elasticity and color retention, to mention just a few. What is more, we supply effective auxiliaries for efficient and smooth production processes.

Integrated Textile-finishing Solutions
Whether applied to non-iron shirts, fragrant laundry, high-quality woolen sweaters, water-repellent functional jackets or towels that are soft yet absorbent, our integrated textile-finishing solutions will tailor your garments and fabrics to your needs.

Versatile Applications
One of the many advantages of silicones is their versatility. They can be used to finish almost all kinds of fabrics, from wovens, hosiery and knitwear to non-wovens and yarns. Silicone grades range from totally inert to highly reactive and from extremely hydrophobic to hydrophilic. Their versatile application potential is also due in part to their excellent compatibility with many chemical finishing agents, such as waxes, fats, polyethylene, reactive resins, wetting agents and optical brighteners.

Integrated Solutions
We care for textiles: this sums up WACKER's expertise. Our experts are more than familiar with the demands of the dynamic textile industry, which is strongly influenced by seasonal trends. We are global. We are part of the textile chain. We identify with the sector and see ourselves as an expert partner to the whole textile industry. Whether you want high-quality, effective and innovative products or globally available and customized services, WACKER will always seek an integrated solution. This means we can work with our customers to tap into a constant stream of new textile-finishing markets and applications – so seize the opportunities!

To underscore our responsibility for sustainability, our products meet many ecological standards.

WACKER®, WACKERFINISH®, ADVALON®, JETSOFT®, POWERSOFT®, SILFOAM® and WETSOFT® are registered trademarks of Wacker Chemie AG.
A Soft-Hand Effect
A soft, supple hand is particularly important for creating textiles that are exceptionally comfortable to wear. Regardless of whether the fabric is cotton, polyester or a blend, its softness depends on the frictional forces acting between the individual yarns and fibers. The more mobile a fabric’s fibers are and the lower the inter-fiber friction, the softer the fabric feels.

This is precisely the effect produced by POWERSOFT® and WACKER® FINISH. Our emulsions and emulsion concentrates transport the silicone to the fiber where it is deposited, leaving an ultrathin film on the fiber surface. This makes for wonderfully soft fabrics and outstanding wearing comfort.

A Customized Hand
Comprehensive tests have shown that aminofunctional silicones, particularly those with an amine number from 0.1–0.6 and a viscosity of 1,000 – 5,000 mPa s, produce excellent soft hand in textiles made of cotton, polyester and blends of the two. The physicochemical properties of our softener formulations enable us to continuously modify the type of hand in your textiles to meet your needs, whether the desired feel is soft, dry or supple. To this end, we offer aminofunctional silicone fluids, microemulsions for inner softness, and macroemulsions for a smooth, supple hand. These products are especially important for giving textiles a soft finish.
Efficient Concentrates
When it comes to their effect and dilutability, today’s advanced softeners are expected to possess two characteristics: maximum efficiency and flexibility – qualities that are becoming increasingly important for manufacturers wishing to satisfy the demands of a globalized textile market. Our POWERSOFT® products offer you all of the options provided by traditional amino emulsions, and do so in concentrated form. You can also choose between microemulsion and macroemulsion concentrates, for optimum effects right down to the last drop.

Jet-Stable Textile Finishing
Aside from a “soft hand,” the traditional aim of finishing processes, our JETSOFT® products also produce a very pleasant dry hand. Our softeners meet stringent process reliability requirements, especially in terms of pH stability and shear resistance, and can be used even under the extreme conditions prevailing in jet dyeing machines.

How Emulsions Work

Product Solutions

Amino fluids:
- WACKER® FINISH WR 210
- WACKER® FINISH WR 301
- WACKER® FINISH WR 1200
- WACKER® FINISH WR 1300
- WACKER® FINISH WR 1600

Microemulsions:
- WACKER® FINISH CT 34 E
- WACKER® FINISH CT 96 E
- POWERSOFT® PE 280

Macroemulsions:
- WACKER® FINISH CT 45 E
- WACKER® FINISH CT 78 E

Concentrates:
- POWERSOFT® AE 54
- POWERSOFT® AE 61
- POWERSOFT® AE 66
- POWERSOFT® UP 68

For jet application:
- JETSOFT® CONCENTRATE (especially shear resistant)
MOISTURE MANAGEMENT: FOR TEXTILES THAT ARE SOFT AND ABSORBENT

Permanently soft and yet extremely absorbent – a combination of textile properties made possible by our new generation of silicone softeners. Take a look for yourself.

Innovative Properties
Functional textiles have to meet ever higher demands. A good towel should be both wonderfully soft and hydrophilic. The same applies to modern clothing textiles: the wearer expects a soft hand combined with optimum moisture management. Only textiles boasting both properties can satisfy today’s increased demands for wearing comfort. No consumer today would wear a garment that doesn’t feel good because it scratches or rubs, even if it offers perfect moisture control.

WACKER’s impressive new generation of silicone softeners combines these two finishing properties – softness and hydrophilicity – creating the perfect balance between the two.

Special Features
The trend in modern textile finishing is definitely toward softness and hydrophilicity – a combination that is anything but obvious for silicone textile softeners. Silicone softeners typically impart an excellent soft hand, but the textiles absorb moisture quite poorly when used for drying. Similarly, garments made from these textiles absorb only a fraction of the moisture generated by perspiration, making it difficult for the moisture to evaporate.

WETSOFT® NE is different: selective control of silicone-fiber interaction makes it possible to combine the contradictory properties of excellent silicone hand and hydrophilicity. The fabric’s enhanced moisture transport makes textiles significantly more comfortable to wear. Polyester fabric can be wetted with water, while cotton remains absorbent even after finishing.

Another advantage of WETSOFT® NE is that its effect lasts much longer than that of conventional products based on aminoglycol silicones. It is, after all, a very special softener.

The Softener Range

- WACKER® FINISH WR 210
- WETSOFT® NE 500
- WETSOFT® NE 760
- WETSOFT® NE 810
- WETSOFT® NE 820
- WETSOFT® NE 910
- WETSOFT® NE 920
- WETSOFT® CTA

Unlimited combinations
Efficiency in Action

Our hydrophilic WETSOFT® NE silicone fluids disperse easily and can be applied by padding or exhausting. As WETSOFT® NE 810 and WETSOFT® NE 820 may be blended in any desired proportions, you can tailor the hydrophilicity and softness of your textiles to precisely suit your requirements. We also supply a ready-to-use macroemulsion, WETSOFT® NE 230.

WETSOFT® NE 750, a new water-free silicone softener concentrate that can be easily used to produce highly efficient hydrophilic macroemulsions, rounds out our product portfolio.

And because WETSOFT® NE 430 and WETSOFT® NE 500 generate a uniformly hydrophilic fiber surface, color errors can even be corrected during textile processing. This often cuts costs significantly.

Softeners with Little Risk of Yellowing

Yellowing is very often a problem when conventional softeners are used to finish white textiles. But WACKER has the right product for this application, too. WETSOFT® AE 200 makes your textiles ultra soft and very hydrophilic, and yet has extremely little influence on color changes such as yellowing and red shift.

Alkali-Stable Softeners

WETSOFT® NE 580, a self-dispersing microemulsion concentrate that gives textiles excellent absorbency and a very soft hand, rounds out our range of hydrophilic softeners. Other properties go without saying, such as the softener’s excellent stability in alkaline environments, at high temperatures or under high shear forces, as well as its straightforward processing and great versatility.

Wash-Resistant Softeners

WACKER now offers yet another product innovation: wash-resistant hydrophilic softeners. WETSOFT® WP 101 is a concentrate that gives textiles excellent absorbency and a very soft hand – properties that remain even after several wash cycles.

WETSOFT® WP 201 offers these characteristics as well, but its focus is on providing outstanding surface slipperiness. Both products have excellent exhaustion rates.

Product Solutions

Hydrophilic softeners:

- WETSOFT® CTA
- WETSOFT® AE 200
- WETSOFT® NE 230
- WETSOFT® NE 430
- WETSOFT® NE 500
- WETSOFT® NE 580
- WETSOFT® NE 750
- WETSOFT® NE 810
- WETSOFT® NE 820
- WETSOFT® WP 101
- WETSOFT® WP 201
REPELLENCY MANAGEMENT:
FOR RAIN GEAR THAT IS PLEASANT TO WEAR

Dirt and water repellency are typical finishing effects in modern textiles. WACKER silicones offer novel opportunities in this field of application.

Water-Repellent and Breathable
One of the most important basic properties of silicones is their pronounced water-repellent effect. This property can be tailored to your requirements, producing exactly the desired hydrophobic effect through the use of specific catalysts. A particular advantage here is that your textiles remain breathable despite the finish.

And it goes without saying that silicones also confer the traditional soft hand on your textiles. WACKER® REPELLENT 50, our specifically water-repellent product, is applied individually as an aqueous dilution of 3 components: BASE, EXTENDER and CATALYST.

Dirt-Repellent and Soft
Systems containing fluorocarbons are generally considered the most effective dirt-repellent finishing agents. But fluorocarbons usually make textiles scratchy. WACKER offers you a proven softener that is suitable for blending with various fluorocarbons yet do not impair their oil repellency. Textiles finished with this WACKER softener have a much softer hand than that produced by fluorocarbon-containing systems on their own. Previously scratchy rainwear becomes pleasant to wear and doesn’t rub the skin at all. Please ask us about these innovations.

Product Solutions
Hydrophobic softeners:
WACKER® REPELLENT 50
ADVALON® HO 111
Our silicone-based wool-finishing softeners impart particularly useful properties, making for soft, wrinkle-resistant woolen fabrics and garments that keep their shape and are extremely comfortable to wear.

**Dimensionally Stable Wool**
Our reactive silicones with SiOH and amino groups are able to react with themselves and with crosslinkers. The resultant three-dimensional network provides a wool finish that is characterized by resiliency, body, and the soft hand typical of silicones.

**Resilient Antipilling Effect**
But silicone elastomers from WACKER are also perfect with respect to many other properties important for wool, such as antipilling, resilience and wrinkle resistance. They prevent formation of the small fuzzy balls, or pills, so typical of woolen fabrics, and make for a soft, supple and pleasant hand. They also enhance elastic recovery and prevent bagging, which is likewise typical of woolen fabrics.

WACKER silicone elastomers provide the ideal finish, particularly for single and double jersey, which are mainly used in high-quality textiles. The result is a soft, lustrous, easy-care garment with enhanced elasticity and good stretch and shape-recovery properties. Combined with reactive resins, our silicones have the added benefit that washing does not affect their excellent shape retention and surface smoothness.

**Product Solutions**
- WACKER® FINISH CT 27 E
- WACKER® FINISH CT 34 E
- WACKER® FINISH CT 78 E
- WACKER® FINISH CT 95 E

WACKER® FINISH CT 27 E
WACKER® FINISH CT 34 E
WACKER® FINISH CT 78 E
WACKER® FINISH CT 95 E
Combinations of cotton and stretch yarn are highly fashionable, as are our silicones, because they create effects in cotton knitwear – such as stretch recovery and an elastic soft hand – without the addition of spandex fibers. Truly flexible.

Elastic Hand
ADVALON® EL 39 is a self-cross-linking, silicone-based macroemulsion that lends unique elastic properties to cotton wovens and knitwear, as well as to polyamid and polyester. This specialty WACKER softener increases elasticity by up to 100%. It can also noticeably improve stretch recovery, optimize crease recovery and reduce abrasion.

Our macroemulsions also impart wash and-wear properties that find acclaim across the board. Exhaustive tests showed, for example, that cotton knitwear still retains 50 % of its stretch after 25 washes. Efficiency you can count on.

Flexible Processing
ADVALON® EL 39 may be used on its own or in combination with a reactive resin, and is applied by padding or exhausting.

Special Requirements
WACKER also offers a number of additional products that fulfill specific stretch and slipping requirements right from the fiber production stage. Don’t hesitate to contact our specialists.

Product Solutions
ADVALON® EL 39
The versatility of silicones makes them compelling: in polyester fabrics, they offer a soft hand, intensify colors and allow for brilliant pigment printing. This makes for vivid colors all round.

Silicones for enhancing color intensity:

Color-Intensive Polyester Fabrics
WACKER silicone softeners make colors in textiles especially vivid. Besides making them silky-soft, treating your polyester fabrics with ADVALON® CI 40 will also bring out the shade better. The colors appear fresher and more intense.

Treatment also noticeably inhibits thermomigration of the disperse dye used.

Brilliant Pigment Prints
Earlier printing methods usually involved applying the textile ink by means of a solvent. This technique produced brilliant, clear colors of the kind associated with oil painting. In today’s applications, by contrast, the preference is for water-based pigment pastes, which produce paler, more superficial colors. Expressed differently: without silicones, pigment prints lack the all-important intensity. Only the addition of our products to the pigment printing paste can fully bring out color effects such as luster, brilliance and clear print outlines in your textiles.

Silicones from WACKER are added to the pigment printing paste in the form of emulsions or oils, as appropriate. Once the textiles have been printed, the silicones form a thin film on the surface of the printed areas. This considerably reduces friction and pigment abrasion during use, so that fabrics retain their original brilliance and clear print outlines for longer.

Product Solutions
Polyester fabrics:
ADVALON® CI 40
Pigment printing:
WACKER® Fluid Emulsion C 800
WACKER® Fluid Emulsion C 802
FOR PRODUCTION PROCESSES
YOU CAN RELY ON

Wherever the textile industry focuses on production speed, efficiency and reliability, it’s hard to beat our silicone processing auxiliaries. Take a look for yourself.

Specialized Wetting Agents
The ever-increasing speed of textile production means having to reduce the amount of time that textile substrates and aqueous treatment liquors are in contact with each other. This naturally calls for greater wetting and penetration power. Our special silicone wetting agents lower the surface tension of aqueous systems to approx. 20 mN/m.

At the same time, the hydrophilic properties of the silicone emulsions improve adhesion between coatings and textile substrates such as polyester and polypropylene. Another application is the use of glycol-modified silicones as wetting agents for synthetic fibers.

Effective Foam Control
Foam is encountered in almost all the aqueous processing steps involved in textile manufacturing and finishing. It hinders the process and also impairs product properties. This costs time and money. Silicones, meanwhile, are known to be long-lasting compounds capable of producing various effects. On account of their low surface tension, for example, they can be formulated to create highly effective antifoam agents.

The SILFOAM® product line from WACKER provides you with an innovative, effective and safe foam-control system. Our silicone-based antifoam agents regulate undesirable foam formation in textile production particularly well, for they neither combine with the foaming substances nor do they hinder the chemical processes. SILFOAM® can be used for process or product defoaming, as appropriate.

Direct Process Defoaming
Used as a process defoamer, SILFOAM® is added directly to the treatment liquor at regular intervals. Here our products regulate foam formation during the ongoing process and ensure that production runs smoothly. For your production process this means you can manufacture and process fibers faster, accelerate the dyeing and color design processes, and optimize the amount of space and time required.

If they are to be as effective as possible, silicones must have special properties – including excellent thermal and alkali stability and high shear resistance – which render them stable under production conditions. WACKER offers a broad range of silicone antifoam agents that either satisfy all of these requirements or are tailored to a specific stage in the production process.

This means we can offer you a system geared to your particular production conditions, so that, for each stage of your process, you can use products with the ideal pH stability, thermal stability and shear resistance for your specific requirements. A customized system.

Preventive Product Defoaming
When used as a product defoamer, SILFOAM® is incorporated into a system or into a component such as a textile auxiliary. Fortunately, the defoamer only becomes active when the product with a tendency to foam is used, thus optimizing your long-term product quality.

You will find more information on WACKER foam-control solutions in our brochure on antifoam agents. Or call us to arrange a meeting.

Product Solutions
WACKER® L 053
WACKER® L 060
WACKER® L 066

Antifoam emulsions:
SILFOAM® SRE
SILFOAM® SE 39
SILFOAM® SE 40
SILFOAM® SE 47

Self-dispersing antifoam concentrates:
SILFOAM® SD 850
SILFOAM® SD 880
SILFOAM® SD 100 TS

Antifoam compounds for wetting-agent formulations:
SILFOAM® SC 132
SILFOAM® SC 385
Their chemical structure makes silicones from WACKER ideal for finishing textiles with modern functional and fashionable properties.

Chemistry and Application

Our silicones imbue textiles with unrivaled effects such as softness, hydrophilicity, body and color retention, to mention just a few. The exact property profile of the textile finish is determined largely by the silicone polymer’s structure. And since this can be varied greatly, we can offer a customized solution for every textile effect.

Silicone softeners generally consist of linear aminopolymethylsiloxanes with a viscosity of 100 – 100,000 mPa s (Fig. 1). Their basic units differ, for example, in the chain length, the number of functional side groups and the type of end groups (terminated or reactive).

The amino-functional side groups result in an optimal distribution of the silicone on the fiber surface and thus ensure maximum softness (Fig. 2). Amino-functional silicone fluids impart a soft hand much more effectively than their methyl counterparts or silicones with carbonyl or epoxy groups. This is because the molecule’s partially protonated amino groups are able to interact with the negatively charged cotton fiber, for example. Additionally incorporated polyglycol chains also make textiles hydrophilic (Fig. 3).

Aminosilicones first have to be emulsified before they can be used in water-based finishing processes such as padding, spraying, minimum-liquor application methods or jet and foam dyeing.

Structure and Mode of Action

At WACKER, we use the latest research findings to develop innovative products. For example, we base our products on information obtained from the analysis of the silicone polymer’s structure-effect relationships.

This mode of action can be explained in detail as follows: strong anchoring groups ensure that the silicone chains in the silicone copolymer are firmly anchored and distributed over the entire fabric surface (Fig. 2). This is especially true of WETSOFT® NE 810, our hydrophilic softener, in which the polymer molecule is structured in such a way that the hydrophilic chains end up on the fiber surface (Fig. 3).

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The silicone chains (yellow) completely shield the fiber surface. The anchoring groups (green) are attached to a spacer (red) = softness

The only thing that can be felt on the fabric surface is the silicone, while moisture can be transported unhindered along the fiber surface. This superior mode of action makes selective, customized moisture management possible without compromising the fabric’s soft hand.

Particle Size and Effect

Silicone emulsions can produce significant advantages with respect to the textile properties mentioned above. The feel of the textile – dry, oily, resilient, etc. – can be varied extensively depending on the degree to which the silicone molecules crosslink.

Emulsions with different particle sizes can be prepared through the use of customized formulations. The particle size determines whether the emulsions are transparent, opalescent or milky in appearance. In macroemulsions, the particle size is less than 50 nm, and the emulsions are transparent.

In macroemulsions, it exceeds 120 nm; these emulsions are milky.

Particle size has a significant effect on the feel of a textile finish. Macroemulsions containing a short-chain or crosslinked silicone fluid produce a plush, soft, dry hand. In this case, the microemulsion penetrates the fabric right down to the individual primary fibers; interfiber friction is reduced and the fiber takes on an inner softness (Fig. 5).

The distinctly larger silicone particles in macroemulsions, by contrast, are deposited on the surface, where they generate surface softness. The typical characteristics are optimum smoothness, a supple hand, high resiliency and good sewing properties. Because the active agent-to-emulsifier ratio is more favorable here than in microemulsions, a greater quantity of silicone ends up on the fabric and the effect is more pronounced.

Application and Efficiency

Our products are suitable for application using standard techniques such as padding and exhausting. And they yield appreciable cost savings in textile processing. The reason for this is that our new finishing agents produce a more uniform fiber surface. As a result, color errors can be corrected during textile processing without removing the silicone finish. Truly innovative.
WACKER is one of the world’s leading and most research-intensive chemical companies, with total sales of €4.6 billion. Products range from silicones, binders and polymer additives for diverse industrial sectors to bioengineered pharmaceutical actives and hyperpure silicon for semiconductor and solar applications. As a technology leader focusing on sustainability, WACKER promotes products and ideas that offer a high value-added potential to ensure that current and future generations enjoy a better quality of life based on energy efficiency and protection of the climate and environment.

EXPERTISE AND SERVICE NETWORK ON FIVE CONTINENTS

Spanning the globe with 4 business divisions, we offer our customers highly-specialized products and comprehensive service via 23 production sites, 18 technical competence centers, 13 WACKER ACADEMY training centers and 48 sales offices in Europe, North and South America, and Asia – including a presence in China. With a workforce of some 13,450, we see ourselves as a reliable innovation partner that develops trailblazing solutions for, and in collaboration with, our customers. We also help them boost their own success. Our technical centers employ local specialists who assist customers worldwide in the development of products tailored to regional demands, supporting them during every stage of their complex production processes, if required. WACKER e-solutions are online services provided via our customer portal and as integrated process solutions. Our customers and business partners thus benefit from comprehensive information and reliable service to enable projects and orders to be handled fast, reliably and highly efficiently. Visit us anywhere, anytime around the world at: www.wacker.com.

OUR SILICONES SERVICE IS ALSO SOMETHING SPECIAL

Customized solutions are often all-important in textile finishing. It goes without saying that, at WACKER, this also applies to service.

Customized Service
Our expert teams are always ready to help you with high-quality service, from product selection through to technical advice. We seek highly customized, effective solutions geared specifically to your finishing needs, and we continue until the ideal solution has been found.

Global Services
WACKER has its own production sites, technical centers and sales offices in many countries. Our textile-finishing products are not only globally available but are also tailored to local needs. You will find our consultants ready to help you in textile centers all over the world. They have detailed knowledge of local conditions and will attend to your requirements in person – fast, flexibly and directly. That fosters trust.

Sustainable Product Solutions
WACKER considers itself part of the textile supply chain. We therefore attach great importance to sustainability, environmental protection and to product solutions that are as environmentally sound as possible. This naturally includes our assurance that our silicones do their intended job properly. Something you can rely on.

Reliable Logistics Solutions
WACKER works exclusively with certified, highly qualified and modern logistics service providers. To underscore our dependability as a supplier, we record and monitor all transport routes within this global logistics network. In addition, we operate local warehouses in many places.

WACKER is one of the world’s leading and most research-intensive chemical companies, with total sales of €4.6 billion. Products range from silicones, binders and polymer additives for diverse industrial sectors to bioengineered pharmaceutical actives and hyperpure silicon for semiconductor and solar applications. As a technology leader focusing on sustainability, WACKER promotes products and ideas that offer a high value-added potential to ensure that current and future generations enjoy a better quality of life based on energy efficiency and protection of the climate and environment.

All figures are based on fiscal 2016.
The data presented in this brochure are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt.

We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this brochure should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies’ raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties’ rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.
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<th>Product</th>
<th>Application and Special Properties</th>
<th>Type of Product</th>
<th>Soft Hand</th>
<th>Hydrophilicity</th>
<th>Whiteness</th>
<th>Permanence</th>
<th>Bath Stability</th>
<th>Solids Content [%]</th>
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<td>POWERSOFT® UP 68</td>
<td>Softener</td>
<td>Micromulsion concentrate</td>
<td>++++</td>
<td>–</td>
<td>++</td>
<td>++++</td>
<td>+++</td>
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<td>POWERSOFT® CT 290</td>
<td>Softener, shear- and alkali-resistant</td>
<td>Micromulsion</td>
<td>++++</td>
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<td>++</td>
<td>++++</td>
<td>+++</td>
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<td>JETSOFT® CONCENTRATE</td>
<td>Softener, extremely shear-resistant</td>
<td>Amino fluid concentrate</td>
<td>++++</td>
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<td>++++</td>
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<td>+</td>
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<td>WACKER® FINISH CT 27 E</td>
<td>Softener, wool</td>
<td>RTV dispersion</td>
<td>+++</td>
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<td>++</td>
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<td>WACKER® FINISH CT 95 E</td>
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<td>Softener, non-hydrophobic</td>
<td>Amino fluid</td>
<td>+++</td>
<td>++</td>
<td>++++</td>
<td>++</td>
<td>+++</td>
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<td>Hydrophilic softener, self-dispersing</td>
<td>Function fluid</td>
<td>+++</td>
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<td>Functional fluid</td>
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<td>++++</td>
<td>+++</td>
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<td>WETSOFT® NE 810</td>
<td>Hydrophilic softener, self-dispersing</td>
<td>Functional fluid</td>
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<td>Functional fluid</td>
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<td>WETSOFT® NE 430</td>
<td>Hydrophilic softener</td>
<td>Macroemulsion</td>
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<td>WETSOFT® NE 500</td>
<td>Hydrophilic softener</td>
<td>Semi micro Emulsion</td>
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<td>WETSOFT® NE 580</td>
<td>Hydrophilic softener, extremely alkali-stable</td>
<td>Micromulsion concentrate</td>
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<td>++++</td>
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<td>3K Macroemulsion</td>
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<td>ADIVALON® FL 111</td>
<td>Elastic Softener</td>
<td>Macroemulsion</td>
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<td>++</td>
<td>+++</td>
<td>++</td>
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<td>ADIVALON® FL 111</td>
<td>Hydrophilic softener</td>
<td>Micromulsion</td>
<td>+++</td>
<td>–</td>
<td>++</td>
<td>+++</td>
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<td>ADIVALON® CI 40</td>
<td>Color enhancing softener for PES</td>
<td>Semi micro emulsion</td>
<td>+++</td>
<td>–</td>
<td>n.a.</td>
<td>+++</td>
<td>+++</td>
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<td>WACKER® Fluid Emulsion C 800</td>
<td>Pigment printing</td>
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<td>+</td>
<td>–</td>
<td>++++</td>
<td>++</td>
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<td>++++</td>
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<td>CAVAMAX® WT</td>
<td>Odor absorption</td>
<td>Cyclodextrin, aqueous solution</td>
<td>n.a.</td>
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<td>Cyclodetrin, aqueous solution</td>
<td>n.a.</td>
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<td>SILFOAM® SF E</td>
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<td>Anti-foam emulsion</td>
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+= Slightly pronounced ++ = Very pronounced