TECHNICAL TEXTILES
SOLUTIONS FOR TECHNICAL TEXTILES AND THE ASSOCIATED INDUSTRY

SOLUTIONS | TAILORMADE | WORLDWIDE
LONG TERM COOPERATION  
LONG LASTING EXPERIENCE  
COMMON SUCCESS

WAITING FOR YOUR CHALLENGE!

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THE QUALITY DEMANDS OF TEXTILES, WOVENS, AND FABRICS ARE INCREASING AND CONSTANTLY CHANGING. ALONG THE TEXTILE VALUE CREATION CHAIN, A WIDE RANGE OF REQUIREMENTS MUST BE CONSIDERED INDIVIDUALLY AND ABOVE ALL, WITH RESPECT TO INCREASING VALUE.

At Schill+Seilacher, chemicals for refining textiles have a tradition dating back over 130 years. We offer sophisticated solutions and services for cotton, wool, silk, viscose, polyester, polyamide, polyacryllic, polyolefines, blended fibres, and fibre glass. Industry and end-customers alike profit from our flame retardants, water and oil repellent products not to mention our antistatics. Our assortment comprises auxiliaries for the automotive industry, products for the construction industry, fungicides and much more.

As a renowned partner of the global textile industry, we offer forward-looking, innovative solutions of surpassing quality. In-time, as required, and competent.
SCHILL+SEILACHER’S STORY BEGAN IN 1877, WHEN KARL SCHILL AND CHRISTOPH SEILACHER STARTED MANUFACTURING CHEMICALS FOR LEATHER PROCESSING IN HEILBRONN, GERMANY.

Following the Second World War, Schill+Seilacher moved its Heilbronn operation to Böblingen, a suburb of Stuttgart. Although both locations Hamburg and Böblingen are sharing the same name, they are serving different industries and working independently of each other. Schill+Seilacher ventured into the North American market in 1979 with the establishment of Struktol® Company of America. SCA is located at the heart of the American tire industry, just outside Akron, Ohio, and majorly supplies the plastic, rubber and tire industries. Schill+Seilacher Chemie GmbH, situated on the banks of the Elbe just south of Dresden was acquired in the early 1990s and serves as both a production and research facility for silicone based chemistry.

SNS Nanotech in Hudson, Ohio, specializes in developing complex nanofiber matrices and is the youngest member of the Schill+Seilacher Group. Their proprietary technology enables the fabrication of self-supporting mats that can entrap particles within a nanofiber matrix or encapsulate them within individual nanofibers.
... TO A GLOBAL PLAYER IN THE PRODUCTION OF INDUSTRIAL PROCESS ADDITIVES.

IN HAMBURG TO CATER TO THE EXPANDING NEEDS OF ITS GROWING CUSTOMER BASE AND SECURE BETTER ACCESS TO INTERNATIONAL MARKETS THROUGH THE CITY'S BUSTLING PORT.

DIN EN ISO 9001: Our quality guarantee
The high quality standard of our products is guaranteed by our certified quality management system (ISO 9001), which integrates our highly qualified application experts, state of the art laboratories and testing equipment, and modern production methods into an effective and continually improving team.

DIN EN ISO 14001, DIN EN ISO 50001:
Our commitment to the environment
Our commitment to reducing waste and managing energy consumption efficiently has been at the core of our business for many years. By helping us work more efficiently and cost effective, our ISO 14001 and ISO 50001 certification promise better products through environmental responsibility.

Specific information of site certifications can be found on page 30.
PICTOGRAM LEGEND

- Suitable for padding
- Suitable for coating
- Suitable for spraying
- Suitable for scatter coating
- Suitable for hot melt

**FLAME RETARDANTS**

**AQUEOUS SOLUTION – HALOGEN FREE**

**PICTOGRAM LEGEND**

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<th>Legend</th>
<th>Suitability</th>
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<tr>
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<tr>
<td><img src="image" alt="Suitable for coating" /></td>
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<tr>
<td><img src="image" alt="Suitable for spraying" /></td>
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<tr>
<td><img src="image" alt="Suitable for hot melt" /></td>
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<th>N</th>
<th>S</th>
<th>Sb</th>
<th>Br</th>
<th>Cl</th>
<th>B</th>
<th>C</th>
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<tbody>
<tr>
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**FLACAVON**

<table>
<thead>
<tr>
<th>FLACAVON</th>
<th>CO</th>
<th>PES</th>
<th>PA</th>
<th>PAC</th>
<th>PP</th>
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<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**LEGEND:** ✓✓ VERY SUITABLE/DURABLE ✓ SUITABLE/SEMI-DURABLE

- ACCREDITED FOR DIN 4102 B1
- ACCREDITED FOR BS 5852
- BLENDS WITH MAX. 20 % PES
### FLAME RETARDANTS

#### FLACAVON

<table>
<thead>
<tr>
<th>Substance Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flame retardant based on phosphorous substances</td>
<td>Colourless and highly effective on polyamide, thermally stable to 160°C, minimal effect on fabric handle, not durable to weathering/washing, very low tendency to hygroscopic effects.</td>
</tr>
<tr>
<td>Flame retardant based on nitrogenous substances</td>
<td>Universally applicable, non-ionic, generally suited to all fibre types, thermally stable to 160°C, not durable to weathering/washing, gas-phase active flame retardant.</td>
</tr>
<tr>
<td>Flame retardant based on sulphurous substances</td>
<td>Mainly suited to polyester finishing, leaching and washing durable effects after thermosol application at 170°C, gas-phase active flame retardant.</td>
</tr>
<tr>
<td>Flame retardant based on antimony</td>
<td>Polymer flame retardant, suitable for polyester, polypropylene and mixtures with viscose, thermally stable to 180°C, not durable to weathering/washing, gas-phase active flame retardant.</td>
</tr>
<tr>
<td>Flame retardant based on halogenated substances</td>
<td>Particularly well suited to cotton, thermally stable to 150°C, low corrosion tendency, minimal effect on handle, not durable to weathering/washing.</td>
</tr>
<tr>
<td>Flame retardant based on boron</td>
<td>Suitable for polyester, natural fibres e.g. cotton, jute and kenaf, thermally stable to 150°C, not durable to weathering/washing, low corrosion tendency.</td>
</tr>
<tr>
<td>Flame retardant based on carbon</td>
<td>Suitable for OEKO-TEX® Standard 100 product class IV, product has a very low formaldehyde content below the limit of detection.</td>
</tr>
</tbody>
</table>

#### Applications

- Decorative textiles
- Home textiles
- Technical textiles
- Home textiles
- Home textiles
- Textiles
- Home textiles
- Decorative textiles
- Technical textiles
- Textiles
- Home textiles
- Decorative textiles
- Technical textiles
- Automotive
- Nonwoven
- Moulded components
- Velvet curtains
- Decorative textiles
- Upholstery fabrics
- Belts
- Home textiles
- Decorative textiles
- Technical textiles
- Belts
## FLACAVON

### FLACAVON PE 500
- Halogen free phosphorous based flame retardant
- Intumescent system
- Water free or water borne

**Applications:**
- Textile coating
- Wood protection

### FLACAVON KSC
- Special product for natural fibres e.g. cotton wool and mixtures to a maximum of 20% polyester.
- Suitable for effects according to BS 5852.
- When applied in combination with Stabiliser DDA followed by fixation at 170°C: leaching durable.

**Applications:**
- Home textiles
- Decorative textiles
- Upholstery fabrics

### FLACAVON R NEU
- Suitable for cotton and wool.
- Certified to DIN 4102 B 1 for cellulosic fabrics (except jute) e.g. cotton and wool.
- Thermally stable to 110°C.
- Low tendency to crystallisation.
- Minimal effect on shade.
- Not durable to weathering/washing.

**Applications:**
- Decorative textiles
- Technical textiles

### FLACAVON WP
- Special product for cellulosic e.g. cotton and mixtures to a maximum of 20% polyester.
- Fibre reactive with minimal effect on fibre strength.
- Certified to DIN 4102 B 1 for Cellulose (also Jute).
- Leaching and wash durable.
- Dry clean durable.
- Good in combination with fluorocarbon dispersion resins e.g. EVORAL OA.

**Applications:**
- Protective Workwear
- Upholstery fabrics
- Children’s sleepwear
- Workwear e.g. hospitals

### FLACAVON FC 2009/38
- Suitable for cellulose- and wool fibres and their mixtures with up to 20% PES content.
- Fixation is achieved by a thermal process.
- Soaking resistant according to BS 5651/3.
- Good temperature stability.
- Practically no influence on fabric handle.
- Low corrosion effects.
- Low hygroscopicity; the take-up of moisture by the product is reversible.
- Low emissions.

**Applications:**
- Upholstery fabrics
<table>
<thead>
<tr>
<th>FLACAVON POLY 200 NEW</th>
<th>FLACAVON ALH</th>
<th>FLACAVON FL</th>
<th>FLACAVON FL 1025 FF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas-phase active and substrate independent flame retardant</td>
<td>Extender e.g. for FLACAVON H 14/94 GF</td>
<td>Generally suitable for all fibre types, especially polyester</td>
<td>Suitable for cotton, polyester and glass fibre</td>
</tr>
<tr>
<td>Polymeric phosphorous and nitrogen flame retardant</td>
<td>Applied in combination with a binder e.g. UKALIT G 42/149</td>
<td>Applied in combination with a binder e.g. UKALIT L 17</td>
<td>Applied in combination with a binder e.g. UKALIT L 17</td>
</tr>
<tr>
<td>Transparent</td>
<td>Reduces smoke development</td>
<td>Durable to weathering/washing</td>
<td>Good leaching resistance</td>
</tr>
<tr>
<td>Top coat Reinforcement and backing</td>
<td>Leaching and wash durable</td>
<td>Low tendency to cause corrosion</td>
<td>Low afterglow times</td>
</tr>
<tr>
<td>Flooring</td>
<td>Gas-phase active flame retardant</td>
<td>Thermally stable</td>
<td>Low tendency to cause corrosion</td>
</tr>
<tr>
<td>Technical textiles Automobile Nonwoven</td>
<td></td>
<td>Foamable variant available – please inquire</td>
<td>Thermal stability</td>
</tr>
<tr>
<td>Automotive interior Glass</td>
<td></td>
<td>Minimal effect on dyed shades</td>
<td></td>
</tr>
</tbody>
</table>
FLACAVON

FLACAVON POLY 800 NEW
- gas-phase active and substrate independent flame retardant
- polymeric phosphorous halogen free flame retardant
- flakes and powder available
- soluble in organic solvents
- suitable for plastics
- thermal stable and durable

Automotive Foils Moulded parts Hot melt

Tentage fabrics Technical textiles

FLACAVON 275
- additive for reducing afterglow times
- e.g. in combination with FLACAVON H 14/94 GF and UKALIT G 42/149

Foils Laminates Composites

FLACAVON DPL
- melt adhesive based on ethyl vinyl acetate (EVA)
- suitable for polyester, polypropylene and polyethylene
- leaching and wash durable
- low tendency to cause corrosion
- application temperature up to 130°C

Decorative textiles Technical textiles

FLACAVON HS
- suitable for cellulose, cotton and wool
- little effect on fabric handle
- low tendency to cause corrosion
- not durable to weathering and washing
- thermally stable to 110°C
FLAME RETARDANTS

FLACAVON

**FLACAVON FU 5212/06**
- Compound developed to fulfill DIN EN 45545
- Reaction to fire, smoke development and toxicity of materials and components used in rail vehicles

**DF 3016 SERIES**
- Ready to use compounds to impregnate open cell PU foam
- UV stabilized compound
- Halogen free
- Suitable to fulfill Building Classification DIN 4102 B1, self-extinguishing
- No signs of corrosion observed on iron, zinc, steel and aluminum
- Weather tight against driving rain according to DIN 18542 / DIN EN 1027 > 600 Pa

**FLACAVON FU 3110**
- Good effects on polyester
- Good adhesion
- Foamable
- Suitable for performance to M1
- Light stable
- High white effect
- Flexible handle
- Suitable for high definition ink-jet printing

Public transportation
Upholstery

Foams
Sealing tapes

Technical textiles
Home textiles
Interior decoration
Wallcovering systems
FLACAVON

FLACAVON B 45

- suitable for all fibre types
- certificated to DIN 4102 B 1 for cellulosic fabrics (except jute) e.g. cotton and wool
- thermally stable to 100 °C
- little effect on fabric handle
- not durable to leaching and washing

Decorative textiles
Technical textiles
**FLACAVON**

**FLACAVON F 42/156**
- Suitable for all fibre types
- Water free – for use in solvent based systems
- Applied in combination with a binder, especially solvent based polyurethane systems
- Thermally stable to 180°C
- Leaching and wash durable

**FLACAVON FK 6048/07**
- Flame retardant plasticiser, anionic
- Suitable for all fibre types
- Applied in combination with a binder e.g. UKALIT G 42/149
- Thermally stable to 160°C
- Minimal influence on hydrophobic effects

**FLACAVON H 14/94**
- Suitable for all fibre types
- Applied in combination with a binder e.g. UKALIT G 42/149
- Thermally stable to 180°C
- Leaching and wash durable up to 60°C
- Minimal effect on dyed shades
- Low tendency to cause corrosion
- Not based on brominated biphenyl ethers
- Good compatibility with EVORAL OA and AFROTIN ZNK

**FLACAVON M 43/37**
- Polyester, polypropylene and mixtures with viscose
- Applied in combination with a binder e.g. UKALIT G 42/149
- Thermally stable to 160°C
- Leaching and dry cleaning durable
FLACAVON

FLACAVON FH 9004/123

- very effective with all fibre types
- good temperature stability
- weathering durable, water insoluble
- machine washable up to 60°C with a suitable choice of binder
- non hygroscopic
- low tendency to cause corrosion
- contains no substance identified as an SVHC
- foamable
- low emissions
- UV-stable alternative available, e.g. for blinds

Technical textiles

FLACAVON FR 2105

- effects are durable to leaching according to BS 5651
- soft fabric handle
- no hygroscopicity
- low tendency to cause corrosion
- free from softeners or plasticisers
- contains no substance identified as an SVHC

Technical textiles

Upholstery fabrics

FLACAVON FR 5217

- compound for Tentage fabrics
- durable to weathering and leaching
- low afterglow time can be achieved by adding FLACAVON 275
- non hygroscopic
- contains biocides
- contains no substance identified as an SVHC

Tentage fabrics

FLACAVON FR 2103

- compound for roof lining fabrics
- suitable for foam application
- very good flame retardant effects
- flexible handle
- hydrophobic
- permeable
- contains no substance identified as an SVHC

Roof linings
FLACAVON

FLACAVON SERIES

- halogen containing compounds
- good compatibility with AFROTIN ZNK
- colour according to end user specification

SPRAY COLOURS

- aqueous colour pigment dispersion
- polymer containing
- colour according to end user specification

Tentage fabrics
Camouflage nets

Camouflage nets
Lorry covers
# HYDROPHOBIC AUXILIARIES – OLEOPHOBIC AUXILIARIES

## EVORAL

| **EVORAL OA** | C6 fluorocarbon resin  
|              | suitable for all fibre types  
|              | suitable for hydrophobic and oleophobic finishing  
|              | **Home textiles**  
|              | **Automotive**  
| **EVORAL FRN** | C6 fluorocarbon resin  
|              | particularly for hydrophobic finishing of flame retardant polyester fibres  
|              | **Home textiles**  
|              | **Technical textiles**  
| **EVORAL OR-6** | C6 fluorocarbon resin  
|              | highly effective for oleophobic finishing  
|              | little or no influence on the handle  
|              | **Technical textiles**  
|              | **Cellulosics**  
|              | **Synthetic fibres**  
| **EVORAL SR-6** | C6 fluorocarbon resin  
|              | highly efficient for soil-repellent finishing  
|              | **Technical textiles**  
|              | **Decorative textiles**  
| **EVORAL WR-6** | C6 fluorocarbon resin  
|              | highly efficient for water-repellent finishing  
|              | **Technical textiles**  
|              | **Tentage fabrics**  
| **EVORAL S** | paraffin wax dispersion  
|              | only suitable for hydrophobic finishing  
|              | suitable for all fibre types  
|              | **Nonwoven**  
|              | **Glass wall covering**  
|              | **Floor coverings**  
| **EVORAL FLT** | paraffin wax dispersion  
|              | only suitable for hydrophobic finishing  
|              | suitable for all fibre types  
|              | **Tentage fabrics**  
|              | **Lining material**  
| **EVORAL PF** | mixture based on aluminium, zinc and zirconium compounds  
|              | good water repellent properties  
|              | paraffin free  
|              | **Bitumenised fabrics**  

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**SOLUTIONS FOR TEXTILE INDUSTRY**
AFROTIN

**AFROTIN ZNK**
- suitable for cotton and all mixtures with polyester, viscose and linen
- very effective against earth bacteria and moulds
- generally suitable for combination with polymers
- leach durable
- no negative effect on water repellence
- durable anti-microbial finishing
- perfect fit for opaque and dark colors

**AFROTIN ZNP**
- suitable for cotton and all mixtures with polyester, viscose and linen
- very effective against earth bacteria and moulds
- generally suitable for combination with polymers
- leach durable
- no negative effect on water repellence
- durable anti-microbial finishing
- perfect fit for opaque and dark colors

**AFROTIN LC**
- wool, natural fibres such as cotton, hemp, jute, kenaf, linen in mixtures with polypropylene or polyester
- wide spectrum of effectivity against gram-positive and gram-negative bacteria, yeast and all fungi
- effective up to 230°C
- halogen free, heavy metal free
- not durable to weathering/washing

**AFROTIN FG**
- preservative for cellulosic, wool and synthetic fibres
- very effective against fungi
- weather and leaching durable
- little influence on the waterproof properties
- heavy metals, halogen and phenol free

**Tentage fabrics**
- Belts
- Tapes
- Awning
- Protective workwear
- Mattress ticking

**Automotive**
- Insulation
- Cladding
- Moulded components

**Tentage fabrics**
- Shower curtains
- Awnings
EVORAL/SILASTAN

**EVORAL AST**
- foam stabiliser
- no negative influence on hydrophobic effects
- free from dispersing agents and emulsifiers

**SILASTAN 584**
- non-ionic
- residue free decomposition to 130°C
- no influence on hydrophobic effects

**SILASTAN WH**
- medium viscosity paste, cationic
- stable up to 30° German water hardness

**SILASTAN RN NEU**
- good wetting effects at lower temperatures
- effective in alkaline and acid conditions
- limited foam development
VERDICHER

**VERDICHER 18**
- polymer, non-ionic, liquid
- suitable for polymer dispersions
- good wetting of pigments
- good stabilisation of pigment and dyestuff liquors
- little influence on hydrophobic properties

**VERDICHER 41 N**
- acrylate-copolymer, liquid
- strong thickening effects
- particularly useful for hydrophobic formulations
- good electrolyte stability

**VERDICHER 519**
- cellulose derivative, non-ionic
- water-soluble powder
- good electrolyte stability
- good stabilisation of pigment containing pastes

**Technical textiles**

**Glass textiles**

**OPTIMAL pH-RANGE FOR THE THICKENING AGENTS**

<table>
<thead>
<tr>
<th>PH-Value</th>
<th>VERDICHER 18</th>
<th>VERDICHER 519</th>
<th>VERDICHER 41 N</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
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<tr>
<td>5</td>
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<tr>
<td>7</td>
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<tr>
<td>9</td>
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<td></td>
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<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### UKADAN

| **UKADAN 650** |  
|---|---|
| - Self crosslinking acrylate, non-ionic  
- Soft films  
- Good pigment binding capability  
- Good wash durability  
- High visible and UV light stability  
- Non yellowing up to 180°C  |
| **Technical textiles**  
Non marking handle modification |

| **UKADAN 88** |  
|---|---|
| - Self crosslinking acrylate, anionic  
- Medium-hard films, transparent  
- Good pigment binding capability  
- High visible and UV light stability  
- Thermally stable to 180°C  |
| **Technical textiles**  
Tentage fabrics  
Glass textiles  
Automotive |

| **UKADAN 704** |  
|---|---|
| - Self crosslinking acrylate, anionic  
- Very hard films  
- High visible and UV light stability  
- Thermally stable to 180°C  
- No influence on waterproof effects  
- Good compatibility with EVORAL FZ  
- High temperature wash durable effects in handle and stiffness  |
| **Technical textiles**  
Belts  
Tapes |

| **UKADAN 934** |  
|---|---|
| - Self crosslinking acrylate, anionic  
- Medium-hard films  
- Good pigment binding capability  
- Good hydrophobic characteristics  
- Leaching and weathering durable  
- High visible and UV light stability  
- Thermally stable to 180°C  |
| **Technical textiles**  
Tentage fabrics |

| **UKADAN 2170** |  
|---|---|
| - Polyurethane dispersion, anionic  
- Soft films, transparent  
- Hydrolysis stable effects  
- High visible and UV light stability  
- Good wash durable effects  |
| **Technical textiles**  
Automotive |

| **UKADAN PUW** |  
|---|---|
| - Polyurethane dispersion, anionic  
- Soft films  
- Thermo-weldable and pleat formation  
- Hydrolysis stable effects  
- Good light stability  |
| **Technical textiles**  
Automotive |
### UKALIT

<table>
<thead>
<tr>
<th><strong>UKALIT G 42/149</strong></th>
<th>Technical textiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>polyvinylchloride-copolymer, non-ionic</td>
<td></td>
</tr>
<tr>
<td>soft film forming, transparent</td>
<td></td>
</tr>
<tr>
<td>low flammability thus especially useful in FR formulations</td>
<td></td>
</tr>
<tr>
<td>good pigment binding capability</td>
<td></td>
</tr>
<tr>
<td>good hydrolysis resistance</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>UKALIT L 17</strong></th>
<th>Technical textiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>terpolymer, non-ionic</td>
<td></td>
</tr>
<tr>
<td>good pigment binding capability</td>
<td></td>
</tr>
<tr>
<td>forms flexible films</td>
<td></td>
</tr>
<tr>
<td>high visible and UV light stability</td>
<td></td>
</tr>
<tr>
<td>no yellowing up to 160°C</td>
<td></td>
</tr>
</tbody>
</table>

|  | Glass textiles |
|  | Automotive |
UKADAN

**UKADAN 336**
- melamine resin crosslinker for all fibre types
- improves wash durability of fluorocarbon finishes

**UKADAN VR 3105**
- low formaldehyde containing reactive crosslinker
- improves wash durability and oleophobic properties of fluorocarbon finishes
- good running properties
- light- and weather stable

**UKADAN VP 3115**
- low formaldehyde containing acrylic crosslinker
- good adhesion on glass
- good thermal stability
- good solvent stability
- good oil resistance

**Technical textiles**
**Glass textiles**

**Technical textiles**
**High-end finishing**

**Technical textiles**
**Glass fibres**
SOLVENTS

**SILASTOL**

**SILASTOL SOFT 400 – SERIES**
- Hydrophilic cationic softeners based on quaternary silicones
- Available as micro emulsion
- Improves sewability
- Good soft flowing handle
- Good over dye/over print effects
- Good wash and dry cleaning durability
- No tendency to yellowing

**Applications:**
- Cotton terry towel
- Knitted goods

**SILASTOL SOFT 100 – SERIES**
- Hydrophilic non-ionic softeners based on polyglycols and polyethers
- Available as micro emulsion
- Good rewetting
- No tendency to yellowing

**Applications:**
- Cotton terry towel
- Knitted goods

**SILASTOL AE 100 – SERIES**
- Non-ionic amino-silicone elastomers
- Suitable for all fibre types
- Available as micro, macro or a blend of micro and macro emulsion
- Self-crosslinking
- No tendency to yellowing

**Applications:**
- Universally applicable
- Jeans washing
- Padding
- Exhaust method

---

Diagram:
- Silastol Soft 101
- Silastol Soft 403
- Silastol Soft 401
- Silastol Soft 402
- Silastol AE 102
- Silastol AE 103
- Silastol AE 101

- Hydrophilic
- Hydrophobic
- Drape/smooth
- Voluminous/slippery

---

SOLUTIONS FOR TEXTILE INDUSTRY
## DE-FOAMING AUXILIARIES

### DESPUMOL

<table>
<thead>
<tr>
<th>DESPUMOL PM</th>
<th>silicone based, non-ionic</th>
<th>Universally applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESPUMOL CWN</td>
<td>mineral oil based, non-ionic</td>
<td>Universally applicable</td>
</tr>
</tbody>
</table>

### ANTISTATIC AUXILIARIES

| POLYFIX N-FC      | phosphoric acid ester, anionic  
|                  | good effects on all synthetic fibre types  
|                  | high visible and UV light stability  
|                  | little effect on fabric handle  
|                  | no effect on dyed shades |

| POLYFIX WTX       | self crosslinking polycondensate, non-ionic  
|                  | good effects on all synthetic fibre types  
|                  | high visible and UV light stability  
|                  | thermally stable to 170°C  
|                  | durable to mild washing and dry cleaning |

### POLYFIX

<table>
<thead>
<tr>
<th>POLYFIX N-FC</th>
<th>Non durable finishing</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYFIX WTX</td>
<td>Durable finishing</td>
</tr>
</tbody>
</table>
## SPECIALILITIES

### PERLASTAN

#### PERLASTAN O
- N-oleoyl sarcosine
- yellow-brown liquid
- anionic
- low content of free fatty acids

#### PERLASTAN OCV
- N-oleoyl sarcosine
- yellow-brown liquid
- anionic

#### PERLASTAN OCP
- plant-based alternative of PERLASTAN OCV
- approved by FDA/USA for use in blending lubricants with incidental food contact (HX-1 registered)

#### Corrosion inhibitor
#### Lubricant
#### Metal treatment

#### Lubricant
#### Cleaning products
#### Detergents
#### Metal treatment
#### Construction chemistry
#### Flotation reagent

#### Cleaning products
#### Detergents
#### Agrochemicals
<table>
<thead>
<tr>
<th>SILAPHOS MDE N4</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>phosphoric acid mono-/diester of butanol</td>
<td></td>
</tr>
<tr>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>stable in alkaline medium</td>
<td></td>
</tr>
<tr>
<td>low foam development</td>
<td></td>
</tr>
<tr>
<td>stable in hard water</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SILAPHOS MDE F9</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>phosphoric acid mono-/diester of a C8/10-alcohol</td>
<td></td>
</tr>
<tr>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>strong emulsifying and dispersing properties</td>
<td></td>
</tr>
<tr>
<td>high cleaning efficiency</td>
<td></td>
</tr>
<tr>
<td>stable in alkaline medium</td>
<td></td>
</tr>
<tr>
<td>low foam development</td>
<td></td>
</tr>
<tr>
<td>corrosion inhibitor</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>SILAPHOS MDE 104</th>
<th></th>
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<tbody>
<tr>
<td>phosphoric acid mono-/diester of an ethoxylated C-10 fatty alcohol</td>
<td></td>
</tr>
<tr>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>stable in alkaline medium</td>
<td></td>
</tr>
<tr>
<td>good emulsifying properties</td>
<td></td>
</tr>
<tr>
<td>good wetting properties</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SILAPHOS MDE S138</th>
<th></th>
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<tbody>
<tr>
<td>phosphoric acid mono-/diester of an ethoxylated iso-C-13 fatty alcohol</td>
<td></td>
</tr>
<tr>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>strong wetting and dispersing properties</td>
<td></td>
</tr>
<tr>
<td>stable in alkaline and acidic medium</td>
<td></td>
</tr>
<tr>
<td>metal deactivator</td>
<td></td>
</tr>
<tr>
<td>effective corrosion prevention</td>
<td></td>
</tr>
</tbody>
</table>
SCHILL + SEILACHER AT A GLANCE

→ BOEBLINGEN
SPECIALITY CHEMICALS FOR:
- Fibres
- Textiles
- Leather
- Paper
- Cosmetics
- Fine Chemicals

DIN EN ISO 9001:2015
DIN EN ISO 14001:2015
DIN EN ISO 50001:2011
RSPO Certification Mass Balance

→ HAMBURG
SPECIALITY CHEMICALS FOR:
- Rubber Additives
- Antifoams
- Epoxy Prepolymer
- And Flame Retardants
- Latex Additives
- Silicones
- Release Agents

DIN EN ISO 9001:2015
DIN EN ISO 14001:2015
DIN EN ISO 50001:2011

→ PIRNA
SPECIALITY CHEMICALS FOR:
- Silicones
- PU Industry
- Textiles
- Paper
- Cosmetics
- Fibres
- Leather

DIN EN ISO 9001:2015
(ONLY FOR BOEBLINGEN PRODUCTS)

→ HUDSON / OHIO / USA
PRODUCER OF:
- Nanofibre Matrices

DIN EN ISO 9001:2015
DIN EN ISO 13485:2003

→ STOW / OHIO / USA
VILLA RICA / GEORGIA / USA
SPECIALITY CHEMICALS FOR:
- Plastics
- Wood Composites
- Rubber
- Leather

DIN EN ISO 9001:2008
We at Schill+Seilacher “Struktol” GmbH have met all our REACH registration obligations for 2010 and 2013. We are still active in our consortia and have finished the registration process for the 2018 deadline. We also work closely with our suppliers to make sure that all our new raw materials are also REACH compliant.

For further information, please contact our Regulatory Affairs Department at REACH@struktol.de

Disclaimer:
Above mentioned technical specifications rely on an analysis as of: 06.2018.

The mentioned attributes and application proposals are only non-binding application possibilities and application proposals for our products. Our advice and recommendations whether verbal, in writing or by way of tests do not excuse the customer from his or her own examination regarding the applicability for the intended procedures and purposes. The mentioned attributes and application proposals are no assurance for a certain further processing. Any assurances must be agreed upon explicitly and in writing between the customer and us.

We also advise you, that any further processing and the distribution of the further processed products is part of the customers sole scope of responsibilities as the producer of the new product.
Any Questions?
Our service team will be pleased to answer any questions and to assist you with advice and information at all times. We can also advise you of the contact data of our local offices and agencies. Data sheets and samples of our products are available upon request.

For more information please contact:

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Fax:    +49 7031 282-159
E-Mail:  textile@schillseilacher.de

Visit also our site:
www.schillseilacher.de