

## PETER GREVEN Your partner for paper additives







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Sustainability and the demand for renewable raw materials are becoming more and more important in many areas. Peter Greven GmbH & Co. KG as a middle-sized family owned company has always produced additives based on renewable raw materials and can look back to a long experience with these raw materials and associated production technologies. This is the basis for the continuous development of new products and customized solutions for various applications.

The paper industry is one of our key markets for our oleochemical additives. In 2014, we have enlarged our product portfolio for the paper industry with the acquisition of the deinking chemicals business of Stephenson Group Ltd. With this takeover, we strengthen our market position in the paper industry and have enlarged our product portfolio with the product line **SERFAX**<sup>®</sup>.

# SERFAX® LIGAFLUID® LIGASTAR®

**Deinking additives** 

Paper coating additives

**Metallic Soaps** 





### DEINKING

Deinking is the industrial process of removing printing ink from the fibers of recycled paper. The main process of removing ink from recovered paper is by foam flotation. **SERFAX®** range of deinking chemicals produced by Peter Greven is designed to give good ink removal performance with optimum fibre yield. In addition, our **SERFAX®** products are based on natural, sustainable raw materials and are biodegradable.

Our SERFAX<sup>®</sup> deinking chemicals are used in the production of high quality deink pulp, recycled copier and office papers, newsprint, magazines, linerboard and tissue. Peter Greven GmbH & Co. KG manufactures the full range of the ink detachment and collector chemicals used in the paper industry: soaps, fatty acids and liquid chemicals.

### SOAPS

Peter Greven manufactures and supplies, depending on customer requirements, various grades of solid sodium soaps, collector chemicals for flotation deinking. The soaps are in pellet form and therefore offer a good flowability. The below listed soaps can be dosed directly into the pulper, generally it is dissolved and dosed to the pulper and/or the flotation cells.

#### **SERFAX MT 90**

This sodium soap is based on selected fatty acids and offers excellent results over a wide range of wastepaper furnishes and a high standard of ink removal over a broad range of ink sizes. Due to the knowledge and the application information gained over 40 years, SERFAX MT 90 is a very popular and successful collector chemical for deinking processes.

#### SERFAX DBE

SERFAX DBE is based on our established formulation of sodium soaps with the addition of accessory additives that enhance the ink detachment and breakdown. The use of SERFAX DBE enables the leading white grade plants to achieve deinked pulp of quality equal to virgin pulp in brightness and dirt.

#### SERFAX KT/V

SERFAX KT/V is a sodium soap based on selected vegetable fatty acids. This soap is successfully used as a multipurpose collector chemical in the flotation deinking process.





### DEINKING

#### FATTY ACIDS

Peter Greven manufactures and supplies, depending on customer requirements, various grades of hot liquid fatty acids, collector chemicals for flotation deinking. Fatty acids are generally pre-saponified with caustic soda and dosed as a soap solution to the pulper and/or flotation cells.

#### SERFAX RFA

SERFAX RFA is based on vegetable fatty acids. Various grades are available depending on customers' requirements.

#### SERFAX RFS

This fatty acid is the raw material used in the production of SERFAX MT 90 and therefore benefits from the extensive application data already established.

#### SERFAX SF 3 / SERFAX SF 10 / SERFAX SF 30

Our SERFAX SF series includes different high-quality tallow based fatty acids with low iodine value to improve agglomeration and ink detachment.

#### LIQUID CHEMICALS

The SERFAX<sup>®</sup> range of liquid deinking chemicals provide excellent deinking performance with the added benefits of low viscosity liquids – easy handling and accurate dosage control. The below listed products are supplied in 1000 kg IBC.

#### SERFAX FS 25 / SERFAX FS 30

Due to the dispersed form of the fatty acids a quick saponification is achieved during processing. The product can either be used as the main collector or as an additional collector to boost deinking performance.

#### SERFAX T 4000 / SERFAX T 4000 EP / SERFAX T 4000 EPX

SERFAX T 4000 is a high active liquid potassium soap that enables good ink collection. The addition of enzymes in SERFAX T 4000 enhances the ink detachment in neutral pulping and deinking systems. In SERFAX T 4000 EPX the potassium soap, enzymes and a specially created surfactant give excellent ink detachment and collection with improved foam stability over a greater range of operating conditions.

#### SERFAX LV 20

This product improves ink detachment and ink dispersion in pulping whereby flotation efficiency is improved.



### PAPER COATING

High processing speeds for the production of coated papers as well as the requirements of stoppage-free production processes result in high demands for the process additives. Therefore Peter Greven GmbH & Co. KG has further developed soaps and metallic soaps to special additives that render indispensable service for this application. The processing operation during and after coating are facilitated. Sticking of the coating to the upper calender roller is prevented. At the same time, the soaps and metallic soaps operate as waterproofing agents and reduce foam formation. Gloss and smoothness of the coated papers are improved.

#### LIGAFLUID CA 50 F

This calcium stearate dispersion offers a solid content of around 50 % and is used for the production of coatings for the offset area. In addition to the good shelf life, this dispersion is distinguished by good compatibility in the coatings' formulations. LIGAFLUID CA 50 F may be used in combination at pH-values higher than 6 and will not affect the rheology of the coatings.

#### LIGAFLUID CA 50 FH

In addition to the same positive properties of LIGAFLUID CA 50 F, our LIGAFLUID CA 50 FH features an outstanding fineness. In order to show this via data, the medium particle size (D50-value) of the different calcium dispersions has been determined and is shown in figure 2: It becomes obvious that LIGAFLUID CA 50 FH can even surpass the already very good value of LIGAFLUID CA 50 F. In addition our LIGAFLUID CA 50 FH is characterised by a very low sieve residue (see figure 3).

#### LIGAFLUID 50-CW

Based on vegetable fatty acids our LIGAFLUID 50-CW offers perfect properties for application in the food and feed industry. One of the main applications is the coating of baking paper and also the coating of numerous food and feed wrappings in order to make them fat- and water-repellant.



### PAPER COATING



#### **LIGAFLUID AS 30**

LIGAFLUID AS 30 is an aqueous dispersion of ammonium stearate which is mainly used in the field of gravure printing. Beside the positive effect on the coating rheology, this product damps the foam tendency during the processing operation.

#### LIGAFLUID 30-AMW

As with LIGAFLUID AS 30, our LIGAFLUID 30-AMW also damps the foam tendency and has a positive effect on the coating rheology. In addition LIGAFLUID 30-AMW is based on vegetable fatty acids and is particularly suitable for applications in the food industry.



### Additives for SAND PAPERS and THERMAL PAPERS

Specifically regarding abrasive papers for dry grinding, metallic soaps provide substantial improvements. The friction between the abrasive carrier and the ground is reduced. This results in lower temperatures during the grinding process and the material surface is preserved. The covering on the sand paper with abrasive dust is retarded since the metallic soaps coat the abrasive dust with a thin film and operate as separating agents.

#### LIGAFLUID CA 50 F / LIGAFLUID 40-ZW / LIGAFLUID 50-CW

These dispersions may be applied in diluted form to finished sand paper by rolling, brushing or spraying. The special selection of the emulsifying agents guarantees the wetting of the abrasive carrier between the abrasives.

#### LIGASTAR CA 800 / LIGASTAB ZN 70 / LIGASTAR ZN 101/6

These powder stearates are based on technical fatty acids. Their application occurs by means of a priming coat. However it is also possible to produce your own dispersions. LIGASTAB ZN 70 is characterized by its outstanding fineness.

Metallic soaps offer a very good thermal stability and are therefore excellent lubricants for the production of thermal paper. For this application, dispersions of zinc stearates are the preferred additives.

#### LIGAFLUID 40-ZW

Our vegetable zinc stearate dispersion has a solid content of 40 % and is characterized by its high shear stability and its fineness. Due to these positive properties LIGAFLUID 40-ZW is preferred as lubricant in various grades of thermal papers and also in thermal papers for special applications in the food, feed, cosmetic and agrochemical industry.

#### LIGASTAB ZN 70 / LIGASTAR ZN 101/6

As an alternative to the dispersions powder zinc stearates can be used in thermal papers. For this application our products LIGASTAR ZN 101/6 and LIGASTAB ZN 70 are particularly suitable.



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