



DR. PETRY
TEXTILE AUXILIARIES

**TAILOR-MADE
SIZING AGENTS FOR
YOUR APPLICATION**





THE MOST SUITABLE SIZING AGENTS FOR YOUR APPLICATION

Sizing in weaving mills serves to protect the warp yarns during the weaving process. Protective sizing agents help the yarn to withstand high mechanical stress during weaving. By improving the wear resistance of the warp threads and reducing fiber abrasion, yarn breakage during weaving and thus machinery downtime is prevented. Furthermore, sizing improves the appearance of the woven fabric.

The weaving process is a major mechanical challenge for yarns. Especially threads made of cotton, viscose, linen, wool and their blends with synthetic fibers can get damaged by the intense, abrasive stress. This can cause thread breakage and abrasions to the yarns. The application of a protective sizing agent reduces abrasion and strengthens the warp yarns.

We offer a broad range of high-performance sizes based on renewable and synthetic raw materials. In addition, sizing additives and warp waxes are available. Our sizing agents and products for application in weaving process are listed below:

- Sizing agents based on polyvinyl alcohol
- Sizing agents based on carboxymethyl cellulose (CMC)
- Sizing agents based on potato starch
- Sizing agents based on galactomannan
- Customized sizing compounds for special requirements
- Sizing additives, sizing waxes, smoothening agents and cold sizes
- Sustainable sizing agent based on chitosan: PERIPRET CTS liq.



SIZING AGENTS BASED ON POLYVINYL ALCOHOL

Our EKAVIOL sizing agents based on polyvinyl alcohol are characterized by high adhesive power. Depending on the desired properties the various products can form either tough, tear-resistant or elastic, transparent sizing films. Our EKAVIOL sizing agents are non-ionic and can be combined with other sizing agents. The EKAVIOL sizing agents are suitable for natural fibers as well as for synthetic staple fibers and their blends.

Product	Application/Characteristics	Chemical Type
EKAVIOL BEZ	Water soluble, low viscous sizing agent for all types of yarns, desizing in alkaline pH range also possible	Polyvinyl alcohol copolymer
EKAVIOL TT-06	Water soluble, low viscous sizing agent for all types of yarns, especially for synthetic fibers	Polyvinyl alcohol
EKAVIOL TT-23	Water soluble, medium viscous sizing agents for all types of yarns, especially for synthetic fibers	Polyvinyl alcohol

SIZING AGENTS BASED ON CARBOXYMETHYL CELLULOSE (CMC)

EKACELL agents, based on purified sodium carboxymethyl cellulose (CMC) with low salt content, are applicable on all staple fiber yarns. The products have an excellent adhesive power and provide the finished yarns with a stiff handle. The relatively elastic sizing films are low-dusting. As further advantage, CMC sizes can be removed from the woven fabric by a simple washing treatment at low temperatures. As a base for a subsequent coating the sizes based on carboxymethyl cellulose can also remain on the goods.

Product	Application/Characteristics	Chemical Type
EKACELL DT-20	Low viscous sizing agent for all types of staple fiber yarns	Carboxymethyl cellulose
EKACELL DT-250	High viscous sizing agent for all types of staple fiber yarns	Carboxymethyl cellulose



SIZING AGENTS BASED ON POTATO STARCH

Apart from economic advantages our EKASTAR products offer very good sizing effects for all yarns made of natural staple fibers as well as for their blends with synthetic fibers. Depending on their chemical modification, our products made of biodegradable potato starch derivatives can be either removed by an enzymatic desizing step or in a simple washing process without any enzymes.

Product	Application/Characteristics	Chemical Type
EKASTAR CMS	Very well water soluble sizing agent for all types of yarns and blends with synthetics	Carboxymethyl potato starch
EKASTAR NAT	Sizing agent for natural fibers and blends	Starch derivative

SIZING AGENTS BASED ON GALACTOMANNAN

Our EKAGUM sizing agents based on galactomannan are characterized by a very soft, smooth, supple handle. The warp threads can be easily separated in the dry dividing zone. Thus, the hairiness of the threads is significantly reduced. Galactomannan sizes create an elastic sizing film, provide a smoothness and minimize the clinging tendency. Yarns sized only with EKAGUM or with a mixture with other sizing agents are remarkably low-dusting when weaving.

Product	Application/Characteristics	Chemical Type
EKAGUM TS-33	Water soluble, low viscous sizing agent for natural staple fibers	Galactoxyloglucan

CUSTOMIZED COMPOUNDS FOR SPECIAL REQUIREMENTS

Our customized specialty products offer advantages like easy handling or they fulfil special technical requirements.

Product	Application/Characteristics	Chemical Type
EKAGUM 143 NK	Water soluble sizing agent with soft handle for all types of fibers	Preparation based on natural polymers
EKAGUM 473	Water soluble sizing agent especially for all natural fibers, desizing in alkaline pH range also possible	Preparation based on natural and synthetic polymers
EKAGUM R	Special water soluble sizing compound for all types of fibers, desizing in alkaline pH range also possible	Polyvinyl alcohol, polymers/ copolymers and poly-saccharides
EKAGUM SE-AK/3	Water soluble sizing agent for all staple fiber yarns, desizing in alkaline pH range also possible	Preparation made of starch, polyvinyl alcohol and galactomannan

SIZING ADDITIVES

Our product range comprises different sizing additives, sizing waxes, smoothening agents and cold sizes which are used at the warp preparation for natural staple fiber yarns as well as blends with synthetic staple fiber yarns. This is resulting in an improved processability of the warp yarns during weaving, high surface smoothness and reduced fiber/fiber and fiber/metal friction. In addition, electrostatic charging is minimized and clinging tendency lowered during weaving.

Our tip: With a combination of our special products [EKAWAX 444](#) and [EKAFIN 2 P](#) warp yarns get an optimum smoothness leading to easy separation at the sizing process and minimized clinging tendency in the shed.

Sizing waxes

Product	Application/Characteristics	Chemical Type
EKAWAX 444	Sizing wax as addition to sizing liquors and for afterwaxing	Blend of natural fat with special emulsifier system
PERFILAN SLS conc.	Sizing additive	Natural fat, waxes and emulsifiers



Smoothing agents

Product	Application/Characteristics	Chemical Type
EKAFIN 2 P	Smoothing agent for warp yarns of all types of fibers applicable in sizing liquors	Emulsion of paraffins and polyethylene
EKAFIN K	Liquid sizing wax with smoothing and antistatic properties for afterwaxing and warping	Polyethylene glycol wax
PERFILAN SES	Self-emulsifying knitting machine needle oil as well as coning, twisting and warping oil, can be easily washed off	Aliphatic ester oil and fatty alcohol polyglycoether

Cold sizes

Product	Application/Characteristics	Chemical Type
EKACOL FA	Cold size for preparation of all staple fiber yarns	Polyvinyl alcohol and polyethylene glycol
EKACOL TN	Cold size for preparation of all staple fiber yarns	Preparation of water soluble polymers based on polyvinyl alcohol and synthetic smoothing agent
PERFILAN 828 conc.	Cold size with high adhesion capacity	Polyvinyl alcohol and polyethylene glycol



SUSTAINABLE SIZING AGENT BASED ON CHITOSAN: PERIPRET CTS liq.

Our modern, sustainable high performance sizing agent PERIPRET CTS liq. based on chitosan polymers is produced from renewable resources and completely biodegradable.

Product	Application/Characteristics	Chemical Type
PERIPRET CTS liq.	Sizing agent based on chitosan	Chitosan polymer solution

ARE YOU LOOKING FOR THE SUITABLE PRODUCT FOR YOUR APPLICATION?

The optimum product for your special application purpose depends on the material used and the available machinery; but also the climatic conditions, the demands on the textile article and the increasingly relevant ecologic aspects are of high importance.

Would you like to know which product is best suitable for your application? Our specialists look forward to helping you. For your individual application and requirement our weaving experts kindly develop tailor-made solutions. Just get in contact with us.



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