

Experts for high-performance chemical and mineral specialties. Since 1894.

**Composite  
Materials for  
thermosetting  
applications**

## Competence, Experience and innovative thinking

### Your partner for custom-made solutions

Raising productivity, lowering costs or optimizing product quality – the Composite Materials business team of Lehmann&Voss&Co. supports its international clients with intelligent and innovative solutions for thermoset composite production processes like SMC/BMC, Vacuum Infusion & Pultrusion that are ideally tailored to the issues they face. Development, production, laboratory, pilot plant and sales all from a single source give you the assurance that Composite Materials solutions deliver

precisely what they promise. Our committed team see themselves as partners capable of providing valuable input in every phase of the production process. For example, we have been supporting the development of SMC/BMC technology since its beginnings, which means our clients profit from our sound expertise and decades of experience but also from our efficient network of internal and external specialists who help us to ensure a high level of innovative potential.



# Products for SMC / BMC

Various and most efficient.

**LUVATOL® magnesium oxide pastes for the controlled, reproducible thickening of unsaturated polyester resins in SMC and BMC production. Carrier films, flame retardants, dispersing agents and a selected product range of special additives complete our product range.**

## **LUVATOL® – thickening pastes**

- Constant thickening performance from batch to batch
- Possibility of automatic and continuous dosage
- Dust free, easy incorporation, no agglomerates
- Resistant against moisture and CO<sub>2</sub>-absorption
- Special grades are suitable for food contact applications

## **TRENNFILM – carrier film for SMC**

- Mono-cast polyamide and coextruded PE/PA/PE carrier films for a wide range of customer requirements
- High tensile strength, good release properties and secure impermeability to styrene

## **LUVOGARD – flame retardants**

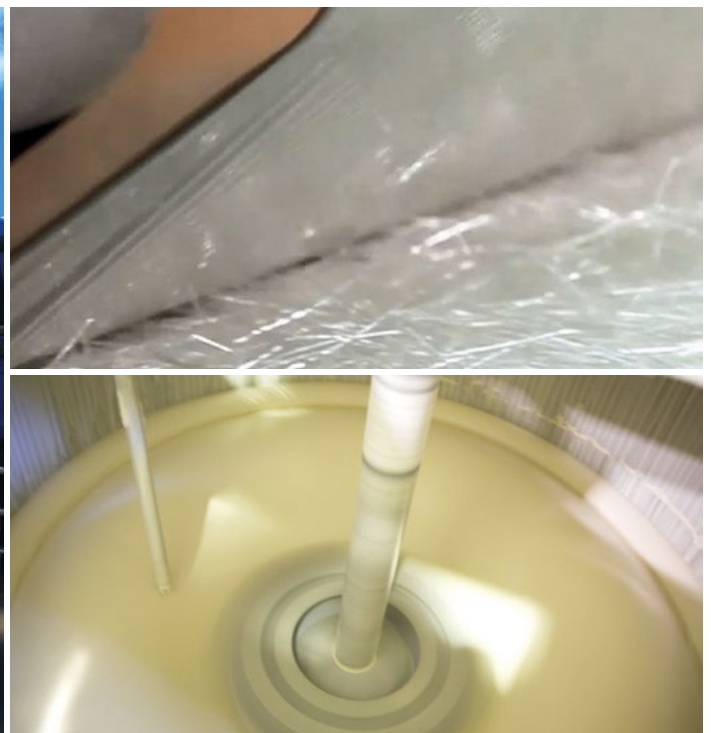
- High concentration of active ingredient
- High efficacy, reducing the load of ATH
- Easy-to-meter pastes & liquids

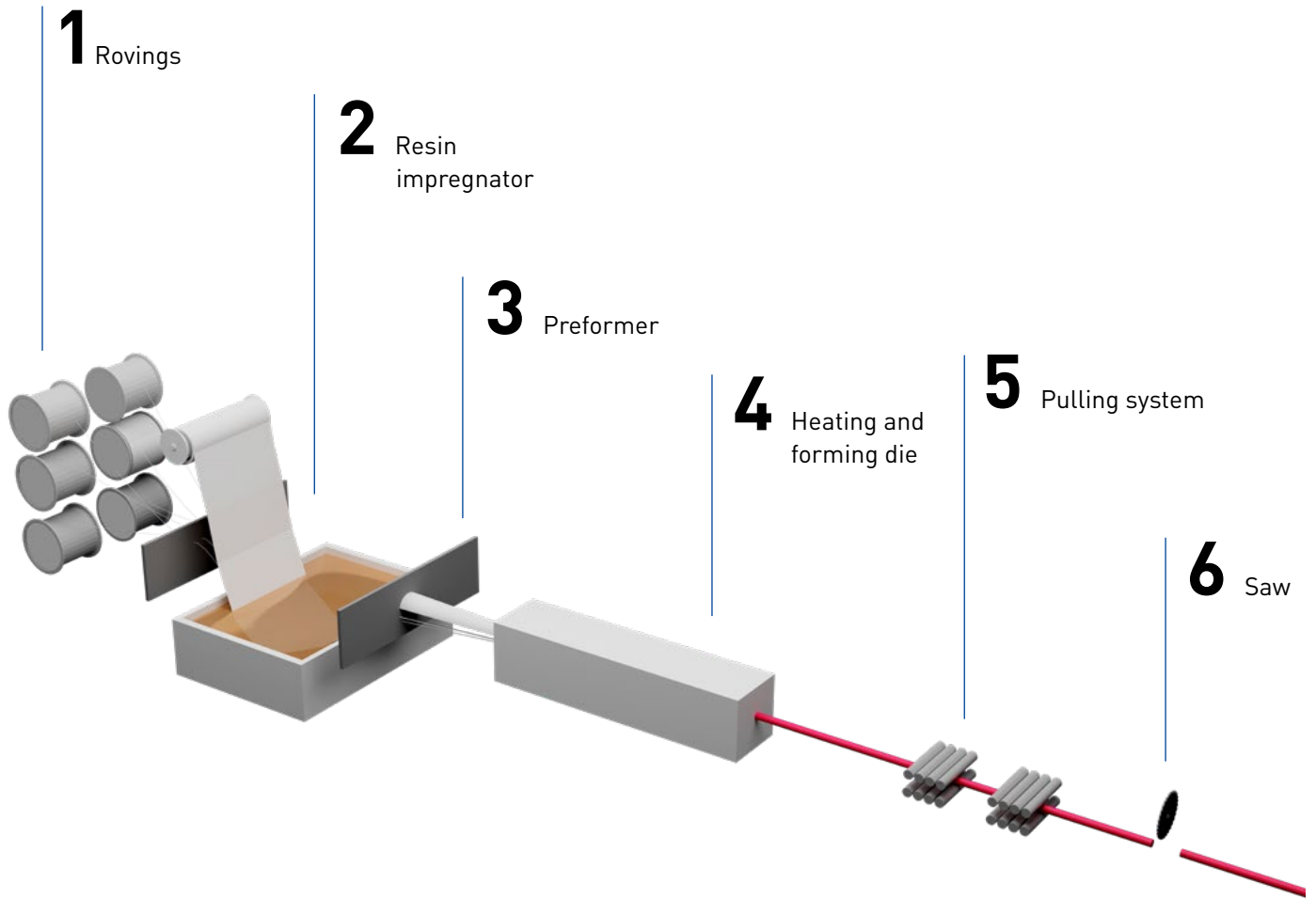
## **LUVATINE VC – wetting & dispersing, viscosity reducing additives**

- Cost-efficient, highly effective wetting agents to improve the dispersion of pigments and fillers

## **SMC/BMC additives**

- PE powder, fine naturally white powder, used as low shrink additive
- Liquid Zn-Stearate replacement for improved fiber wetting, fillers and resin flow and surface finishing





For around 70 years, the pultrusion process has been considered the process for manufacturing fiber-reinforced thermosets. Today, users have an almost infinite number of possibilities to produce the exact profile that perfectly fits their application. Perfect in terms of dimensions, structure and surface.

# Products for Pultrusion

Innovative products to improve your process.

Producing fibre-reinforced profiles in a pultrusion process confronts users with a wide variety of challenges. The Composite Materials business team offers a range of products to help master these challenges.

## LUVOTRENT – Internal mold release systems

- Internal flow modifier and release agent for pultrusion applications
- Faster cycles, easy mold release, improved flow characteristics, reduced resin viscosity, improved dispersion of pigments/fillers, bettering of surface and reduced wear and tear on dies and tools
- Act as a low-emission alternative to zinc stearates

## LUVOGARD – flame retardants

- High concentration of active ingredient
- High efficacy, reducing the load of ATH
- Easy-to-meter pastes & liquids

## LUVATINE VC – Wetting & dispersing, viscosity reducing additives

- Cost-efficient, highly effective wetting agents to improve the dispersion of pigments and fillers
- Viscosity reducing effect allows highly filled resin formulations

## PEEL PLY – woven fabric based on PA66 (Nylon 66)

- Strict quality control
- Tested regularly for absence of residues, tensile strength, area weight, fibre density
- Available in different weights per unit area and versions

## Air Release Agents – Surface & processing aid

- Reduces tension between solid and liquid formulation parts
- Ensure improved processing and optimum surface



# Products for Vacuum Infusion

Best results during the whole process.

The Composite Materials business team provides a broad range of high-quality and innovative products for vacuum infusion technology, mainly for the construction of rotor blades for wind turbines.

## PEEL PLY – woven fabric based on PA66 (Nylon 66)

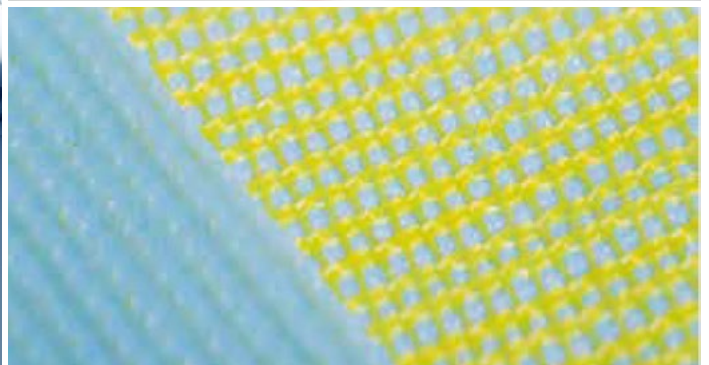
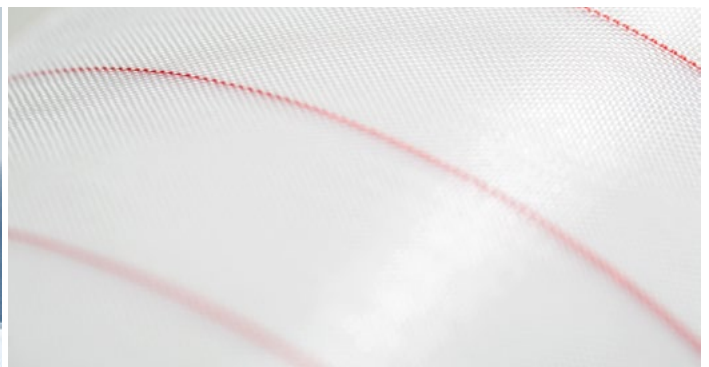
- Strict quality control
- Tested regularly for absence of residues, tensile strength, area weight, fibre density
- Available in different weights per unit area and versions

## COMBIMESH / COMBIPLY – flow-enhancer composites

- Bonded composites made from a perforated film or Nylon 66 Peel Ply and a woven or extruded mesh
- Combines several working operations in one product

## VACUUM FILM / RELEASE FILM

- Coextruded polyamide-film for widths between 3000mm and 8000mm
- High quality, heat stabilized cast polyamide-film
- Hot needled perforated polyethylene release film for an even resin penetration



# Our Business Areas

## Plastic and Rubber



### High-Performance Compounds

LUVOCOM®  
LUVOSINT®  
LUVOCOM® 3F  
LUVOCOM® P  
LUVOTECH®



### Technical Compounds

WEROMID®  
WEROFORM®  
WEROBLEND®  
WEROLON®  
WEROTHERM®



### Masterbatches

LUVOBATCH®



### Products for Composites

LUVATOL®



### Raw Materials for Rubber

LUVOMAXX®

## Special Chemicals and Industrial Minerals



### Magnesium Compounds



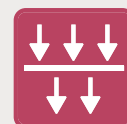
### Rare Earth & Zirconium Compounds Inorganic Raw Materials



### Raw Materials for Coatings



### Raw Materials for Functional Fluids



### Products for Filtration and Separation

## Life Science



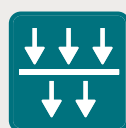
### Raw Materials for personal Care



### Raw Materials for Nutritional Supplements and Foods



### Pharmaceutical Ingredients



### Products for Filtration and Separation

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