

YOUR WORLD OF COATING

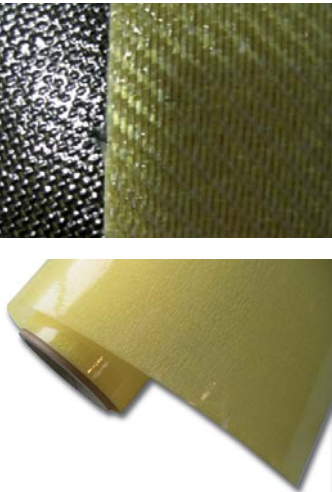


Coatema Prepreg Technologies

Coating Solutions
for Prepregs / Composites



www.coatema.de



Application of prepregs / composites

In-depth knowledge of the industry

For 30 years now, Coatema Coating Machinery GmbH has been designing and constructing coating and laminating plants for the most different applications. Almost all substrates and chemicals can be processed on Coatema plants; either as sheets or from roll to roll.

You may be sure that Coatema will also offer you the optimal **coating technology for the production of prepreg products**. We have adapted to the increasing demand for fibre-reinforced plastics with highly innovative machine concepts.

Our flexible and multi functional coating plants enable the ideal processing of the fibre materials and

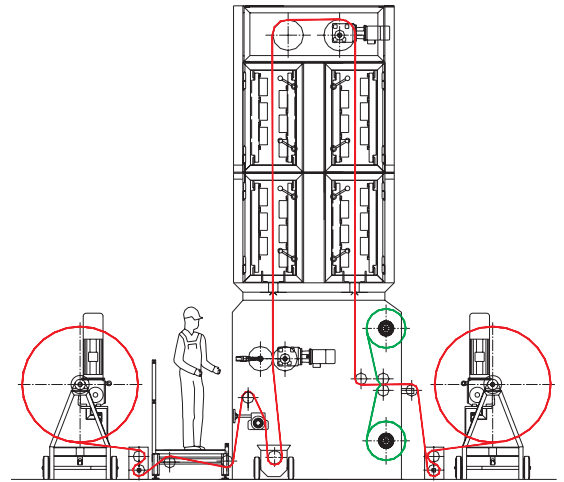
substrates and the production of most different **prepreg products made of rovings, textiles and ultraaxial structures**.

A corresponding necessary machine layout always includes the application of epoxy resin and phenolic resin onto the most different types of substrates.

The following application systems can be used: Knife System, Powder Scattering System, Slot Die System, Hotmelt Slot Die System and dipping system. All these systems are available as modular and quickly changeable systems, which guarantees a high degree of flexibility.

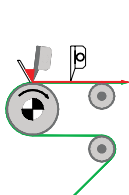


Coating plant for prepregs / composites on two levels

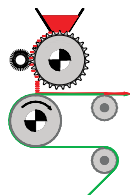


Vertical coating plant for prepregs / composites

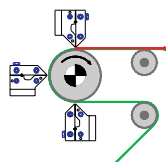
Typical modular application systems for prepregs / composites



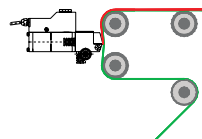
Knife System



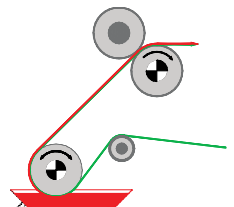
Powder Scattering System



Slot Die System



Hotmelt System



Dipping System

The right plant in the scale-up process

Coatema offers coating plants in the area of basic research, from the labcoater up to the production plant for **semi-finished products** for **fibre-reinforced plastics**.

With Coatema's coating plants, the most different source products can be processed. These **source products** mainly consist of **carbon-, glass-, Kevlar®- and synthetic fibres**.

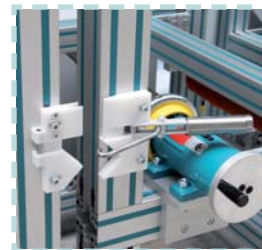
The **substrates to be processed** have very different appearances, like **rovings** as well as **fabric, uni-, bi- and multidirectional fibre constructions**, but also as products with several orientations, according to the direction of the tensile strength needed for the final product.

For the different Prepreg products, Coatema offers in the R2R area coating plants in working widths from DIN A 4 up to 1.500 mm.



Click&Coat - Konzept

Coatema has developed the innovative Click&Coat concept for pilot plants to be able to react faster and in a more cost-saving way to the most different requirements. Click&Coat permits the flexibility of the individual coating heads but also of the entire plant: The individual plant components are movable and can be brought into the right position by a simple "click" and be connected to the recently developed control system. This is a unique way to combine different processes in modular design.



Click&Coat: the individual plant components can be brought into the right position by a simple "click"



Processing of Rovings with a warp creel



Dipping System



Infrared Dryer



Powder Scattering System



Coatema Coating Center

The company owned coating center is one of the world's best equipped with more than 1.200 m² of floor space. It offers 10 pilot plants and 1 production plant with working widths from 250 mm to 2.000 mm.

Almost all substrates like textiles, film, paper and foil can be processed on the Center's plants. For the **production of prepregs**, various raw materials can be used like e.g.:

- ✓ Solvent based or water based epoxy resins
- ✓ Powder materials
- ✓ Hotmelts
- ✓ Phenol systems
- ✓ Polyester-/vinyl ester/acrylic resin systems

The experts in our lab will support you during coating trials and from your idea to the finished product.

In addition to our standard plants tailor-made machines and entire automation solutions are offered by Coatema.



Coatema
Coating Machinery GmbH



Coatema R&D Center on 1.200 m²



Easycoater
Working width: DIN A 4



Basecoater
Working width: 250 mm



Support by coating experts
in the Coatema Coating
Center



Deskcoater
Working width: 500 mm



Multifunctional Coating
Line
Working width: 500 mm



Use of the most chemicals
and formulation methods

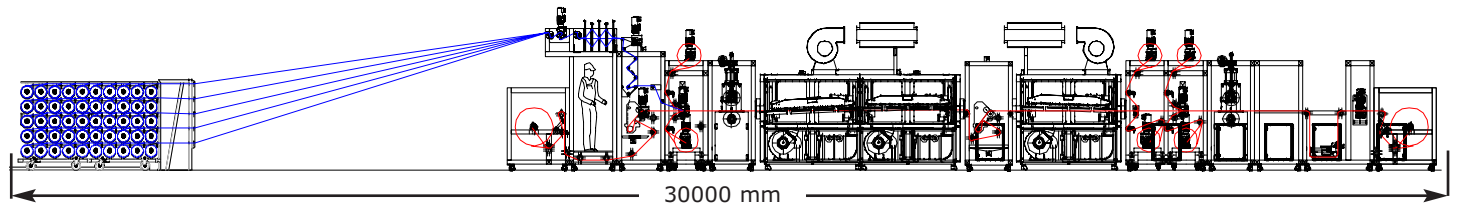


Click&Coat - Unit
Working width: 500 mm

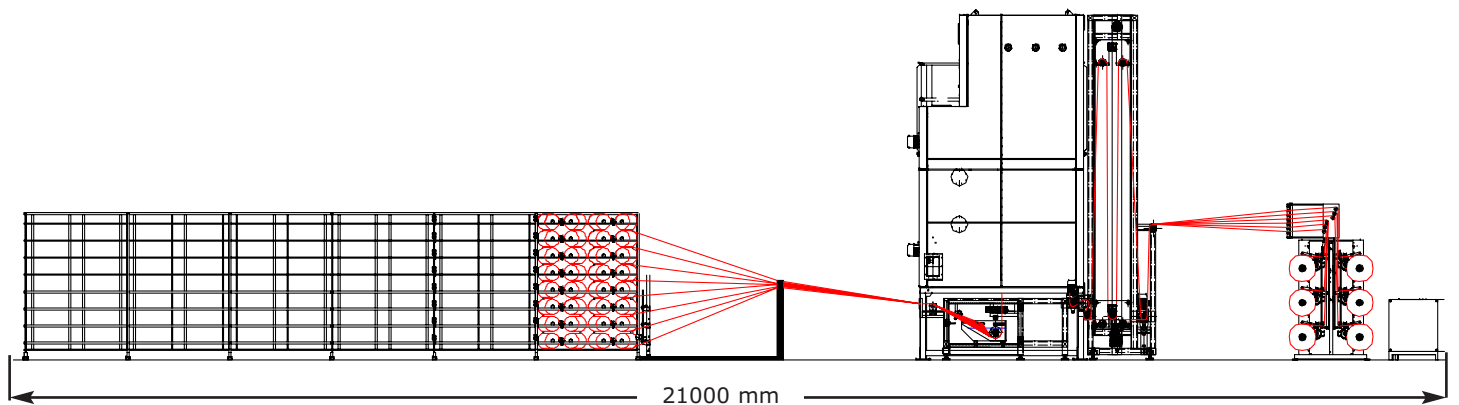


Linecoater
Working width: 500 mm

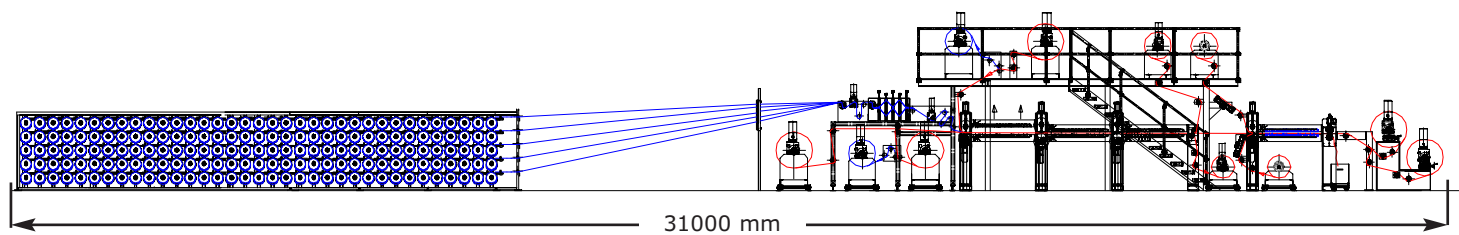
Further plant layouts



Multifunctional machine handling glas- and carbonfibres with flexible Click&Coat units. This machine can work with solvent based but also hotmelt epoxies.



Simple impregnation unit for unidirectional belts and ribbons with solvent based epoxies.



High-precision productionplant handling single glas- and carbonfibres as well as fabrics, to be coated with hotmelt epoxies. The prepreg gets impregnated through highest precision calandering units.