



SAERTEX USA

POWDER BINDER CAPABILITIES

FOR AUTOMOTIVE AND DEFENSE

**Powder Binder (PB) on Multiaxial Fabrics** is a process in which powder is applied to the entire or to specific tapes widths of a SAERTEX fabric.

Benefits of Multiaxial Fabrics with Powder Binder:

- 1. Production of dimensionally stable preforms:** Improves the characteristics of the respective fabric to obtain preforms which are as dimensionally stable as possible.
- 2. No wash-out:** With reactive binders there is no wash out (E.g. RTM-Process), which means improved quality of the finished product.
- 3. 2nd shaping possible:** With non-reactive binders, a second shaping is still possible without negatively influencing the structural abilities of the product.
- 4. Defined and reproducible application quantities:** The added value process of powder binding ensures precisely reproducible product properties in large quantities.
- 5. Additional fiber bonding:** There is less distortion and fiber loss during handling. This improves quality and saves time and costs.

# TYPICAL POWDER BINDING PROCESSES

## NON-REACTIVE PREFORM BINDER

Placing a preheated fabric with binder in a cold mold.

1. Freeze hot binder in a closed forming tool (approx. 3-5 min.)
2. Demolding preform

Key feature: 2nd shaping possible

## REACTIVE PREFORM BINDER

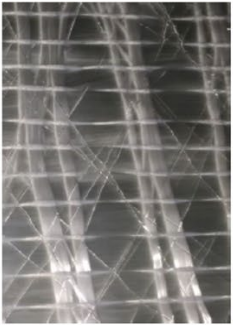
Placing a cold fabric in a preheated mold.

1. Crosslink binder in a closed forming tool
2. Demolding preform

Key feature: no washout (e.g. RTM-Process)

## TYPICAL BINDERS AT SAERTEX USA

EP and PU compatible



Ambient-  
temperature

60 – 90 °C

80 – 100 °C

100 – 140 °C

130 – 160 °C

## TECHNICAL FEATURES

### Powder weight

6 – 50g/m<sup>2</sup> / 0.18 - 1.5oz/yd<sup>2</sup>

### Binder systems

Epoxy and Polyurethane compatible

### Fabric types

E-Glass, Carbon, Basalt Multiaxial Fabrics

### Width of fabric with PB

Tape width and up to 2540mm/100"

### Powder application

PB on full width of fabric, PB on part of fabric in stripes