Proppants Coating Technology
Over 50 years of experience in research and development, and more than 70 installations of hot resin coating plants around the world, Webac has gained superior technical know-how in coating methods and technology for ceramic and quartz substrates. Our experience offers flexible options to meet your needs and requirements.

You benefit from a coordinated performance system that focuses on your success right from the start:

- **Precision technology**
  - Plant design and construction
  - Mechanical engineering

- **The latest know how**
  - Engineering
  - Turnkey solutions

- **Impeccable service**
  - Individualized advice
  - Tailored solutions
  - Customized service features
  - Spare & wear part packages to meet your needs

- **We offer you**
  - Customer-driven service
  - Reliability
  - Flexibility
  - Confidentiality

Webac Proppants Coating Technology

- **Scope of services**
  - Sand and ceramic proppants resin coating plants
  - Proppants batch mixers for 450 kg and 1000 kg batch sizes
  - Sand heater for 450 kg and 1000 kg batch sizes
  - Dosing devices (speed and volume)
  - Turnkey projects
  - Installation and training
  - After sales service
The Advantages

Over 50 years of research and development

Developing and improving recipes in manufacturing plants is costly because of the large batches, material, energy, disposal costs and production downtimes. The Webac Technology Centre offers you the opportunity to develop, test and improve your recipes to meet the ever-increasing quality and environmental challenges. We will be happy to assist you in collaborating with your process engineers.

The final recipes you could and can transfer, one-to-one, to the Webac production mixer. Our qualified staff, technical advice and future-oriented solutions create the best conditions for your trials. An atmosphere of trust and confidentiality during and afterwards is the cornerstone of our customer relations.

Our “in-house” technology centre offers you:

- Laboratory mixtures of 7-10 kg per batch
- Electrical heated laboratory mixer, up to 200°C
- Recipes can be tested using your own ingredients and components
- Environmentally friendly improvements for your recipes
- Economic improvements to your recipes
- Improved economics of your R&D cost
- Upscaling of test results to Webac production components

Research and Development

You benefit from our own in-house technology centre
The heart of the system:
The Webac Wheel Mixer

The Webac Wheel Mixer is the heart of every coating plant. This is where the components are mixed and the processes determine the quality of the coated sand. The main advantage of the Webac Wheel Mixer is the effective energy transfer to the coating action. The synergy of the sand flow energy in the mixing trough, the pressure energy of the two mixing wheels and the kinetic energy of the material produce singular high-quality results: excellent and uniform resin distribution and the desired evenly performed thin coating. Simple stirring would not be enough! Adapting the mixing speed and coating pressure to the proppants ensures the best results.

Advantages of the Webac Wheel Mixer:

- Adjustable coating pressure and variable mixing speed
- Demonstrably higher coating efficiency
- Ultimate control to ensure uniform properties and reproducible melting points
- Homogenous, smooth and complete coating performance
- Option of double coating
- Coating from < 2% to > 4% with greater stability (up to 15% more strength in comparison to competing plants)
- Less cooling water required to control the reaction of the resin system
- Reduction of the cycle time for B stage and peak bond
- Special air technology for cooling the coated proppants and improved in-process dust control
- Option of performance improvement in existing plants by exchanging the mixers
Ultimate control of all process parameters is necessary to ensure an ideal and controlled chemical reaction. All parameters that influence the coating process, such as weight or temperature, must be set precisely and with defined repetitive accuracy. The Webac Rapid Heater heats the sand within the cycle time to the precise process temperature desired. The heat is uniformly distributed in the sand batch.

The steel housing of the sand heater is thermally insulated to save heating costs and for safety reasons. A heat-resistant shovel mechanism tosses the sand at an adjustable speed through the flame curtain and over a heated baffle plate, which simultaneously helps the heat transfer.

Each grain of sand is therefore guided through the heating zone and no cold spots form. A long burner is used so that the sand is heated over the entire width of the sand heater. Since the sand has to pass through the gas flame, direct and rapid heating of the sand is achieved.

Advantages of the Webac Rapid Heater:

- Every grain of sand is heated to the precise process temperature
- Low energy costs for electrical power and gas
- Compact design
- Batch size and cycle time adapted to the mixing process

The highest level of technical know-how:

The Webac Rapid Heater
Webac Coating Technology
Each grain perfectly coated

Plant Construction
Engineering
Service Package

Webac Gesellschaft für Maschinenbau mbH
www.webac-proppants.com

Telephone  (+49) 22 51 94 60 - 0
Fax        (+49) 22 51 94 60 - 49
E-mail     info@webac-proppants.com
Address    Roitzheimer Straße 180
           53879 Euskirchen · Germany