

Case Study: Skin Care Products

Application

Mix Carbopol® into water.

Specifications

250 lbs of Carbopol 980® into 2,000 gallons water.

Challenge

Disperse Carbopol® evenly and avoid clumping and no product waste.

Issue

Carbopol® will clump when not properly dispersed. These clumps will sink and stick to the sides and bottom of the tank. It can also expand too fast and clog the system.

Products with Similar Challenges

- Shampoo
- Conditioner
- Lotions
- Medical Gels



Powder Mixer Capabilities

Models: 7 configurable

Max. Induction Rate: 600 lbs/min

Max. Flow Rate: up to 350 gpm



Powder Mixer Drops Blending Time by 90%

Global cosmetics maker Coats Aloe International was having issues emulsifying Carbopol® into a skin care product with an in-tank high shear mixer. Their old system would clump and separate as well as foam and overflow the tank. To achieve their desired end product consistency, they had to add additional Carbopol, wasting ingredients. Additionally, they had to introduce the powder at a very slow rate to avoid clumping, which was time-consuming.

Solution

A Powder Mixer 20-53 equipped with a Fristam FS 3532 Shear Blender and an FZX 2200 Liquid Ring Pump was brought in on a trial basis.

Why It Worked

Within the Powder Mixer unit, the FZX generates suction, pulling the powder from the funnel directly into a stream of water, forcing it through the teeth of the shear blender before ever getting into the tank. This process ensures that every particle of powder is wetted and in solution on the first pass, meaning there are no particulates settling out in the tank and the minimum amount of Carbopol® is needed.

The end result with the Powder Mixer was a much better suspension with no ingredients waste. The product was mixed with one pass through the new Fristam system and did not separate. Additionally the processor reduced their mixing time from 5 hours per batch to just 30 minutes.

To read the complete story, visit: www.fristam.com/pm-apps
Call Fristam to discuss your application today: 800-841-5001.



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