



Chemical manufacturer achieves return on investment within 12 months

- **PCC waste containing sand and water transferred**
- **Downtime cut from 24 hours to just 2 hours**
- **Over €100,000 in TCO savings accrued over five years**

A leading European company pumping precipitated calcium carbonate (PCC) has benefited from much extended production uptime thanks to switching to Bredel pumps and abrasive resistant hoses.

PCC has the same chemical properties as other types of calcium carbonate, such as limestone, marble and chalk, and is used for products such as PVC, paints and papers.

The waste from PCC production is recycled, which is where optimised pump technologies made a real operational difference.

Bredel pumps significantly increase process uptime

The manufacturing company had been experiencing issues with its PCC recycling operations using another pump. Repairs at a cost of €1,500 were needed, together with long periods of downtime.

They turned to Bredel hose pumps and their recognised success in abrasive transfer duties. The expert team of Bredel engineers worked closely with the PCC manufacturer to ensure the pumps and hoses were optimised for both reliability and output.

The PCC waste contains sand and water, producing a slurry of between 100 and 1,000 cPs viscosity (10-70% dry solid content) which is pumped to an oven. All the Bredel 65 pumps now installed at this site feature 3kW motors and run at 14 rpm over a 24/7 duty cycle.

In terms of hose life, the first Bredel 65mm diameter standard natural rubber (NR Endurance) hose lasted





for 3,360,000 occlusions, or around 83 days (2,000 hours).

Pump speed, heat, back pressure and product dilution were then checked. As a result, hose life increased to 4,468,800 occlusions, which is equivalent to 110 days or 2,660 hours, a 33% improvement.

When the NR Endurance hose was fitted running under the same conditions, it lasted 7,056,000 occlusions, approximately 175 days or 4,200 hours, an additional gain of 58%.

Huge rewards

The PCC manufacturer's decision to install Bredel pumps has proved hugely rewarding. In the first instance, downtime has been reduced from 24 hours to just 2 hours, providing a return on investment within a 12-month period.

In the five years that Bredel hose pumps have been installed, the company has saved €100,000 in the total cost of ownership compared to its previous pumps in this rugged and abrasive pumping application.

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