

For concentrating a fine-particulate special PCC product a BoCross Dynamic Filter with 6 m² filtration area is operated.

The calcium carbonate suspension is fed to the BoCross Dynamic Filter directly after precipitation with a feed concentration of 13 wt.-% (DS-content). In this state the feed suspension has a high viscosity and has to be thickened to an end concentration as high as possible.

The BoCross Dynamic Filter achieves an end concentration of DS = 40 - 43 wt.-%. This end concentration is higher than the solids content of a filter cake (DS = 37 wt.-%), which is formed by pressure filtration at a pressure difference of $D_p = 6$ bar.

The solids discharged from the BoCross Dynamic Filter completely satisfy the process targets in terms of

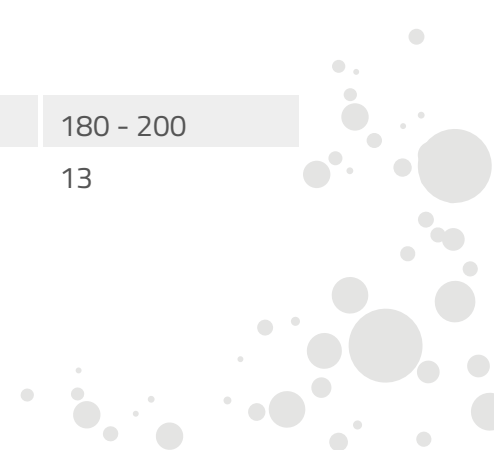
- high end concentration
- no air intake
- pastous consistency with spreadable flow behavior.

BoCross Dynamic Filter

Units installed		1
Filter area per unit	[m ²]	6
Material		1.4571
Filter drive power	[kW]	30 (Pins= 55)
Foot print	[m ²]	2
Year of commissioning		2007

Process and Operation Data

Specific filtrate throughput	[l/m ² h]	180 - 200
Solids content in feed	[wt.-%]	13



Solids content in retentate	[wt -%]	40 - 43
Solids content in filtrate	[g/l]	Free of particles
Operation pressure	[bar, g]	3

Product Data

Product		Calcium Carbonate - Special PCC Product
Medium particle size x50	[μm]	<
Viscosity	[mPas]	25,000
Temperature	[$^{\circ}\text{C}$]	25 – 30

