CELLULOSE FIBERS

Pre-co-Floc®

Benefits -

- Promotes Longer Filtration Cycles
- Reduces Cleaning Requirements
- Prevents Fine Particulate Bleed-Through
- Easy to Use - Precoats Rapidly
- Reduces Soluble Contamination

Pre-co-Floc® filter aid is an environmentally friendly filtration alternative made from cellulose fibers. The cellulose fibers are produced from natural, organic, renewable raw materials.

EP Minerals® provides a wide range of cellulose fiber grades available to meet all your needs. Each grade is derived from purified virgin wood pulp and is 99.9% pure. Cellulose produces almost no ash, is essentially nonabrasive and is inert to acids, alkalis and solvents. Cellulose also does not contain any silica.

In filtration, cellulose can greatly extend filter cycle lengths through use as a primary or remedial precoat with diatomaceous earth by:

- Bridging gaps in the septum and small mechanical leaks in the gaskets and leaf seats.
- Improving the stability of the cake to make it more resistant to pressure bumps and interruptions.
- Creating a more uniform precoat with no cracks to create a more effective filtration surface area.

Cellulose Fibers

Cellulose also offers many advantages due to its low wet cake density which translates to less spent media for disposal. In some cases the spent cake can be incinerated to further reduce disposal costs.

Pre-co-Floc can be used on its own or in tandem with diatomaceous earth (depending on your application) to maximize cost efficiency at your plant. The combination of the increased cycle lengths, improved precoat stability and low wet-cake density makes cellulose an ideal filter aid.

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Applications and Guidelines

For most filtration applications where the cellulose fibers will be used in conjunction with diatomaceous earth (DE) as a primary or remedial precoat it is recommended to use 5-8 pounds per 100 square feet of filtration area. The filter aid should be mixed into the clean precoat liquor and allowed to wet for at least 15 minutes prior to application to the filter.

To provide for maximum filter cycle lengths bodyfeed should be continuously fed. The bodyfeed is typically diatomaceous earth but could also be Pre-co-Floc® or Dialose®, a cellulose and diatomaceous earth blend. The amount of bodyfeed added will depend on the type and amount of suspended solids in your process. See our bodyfeed brochure for more information.

Typical applications include: beer and wine filtration, plating and high alkaline solutions, brine filtration (200M), chlor alkali (200M), cleaning solvents, emulsions, recovery of rare earths and catalysts, boiler feed and condensate, swimming pools, edible oils and more.

When using Pre-co-Floc as a precoat in conjunction with DE, we provide the following basis as a guideline to help you select the cellulose that best compliments the following grades:

Pre-co-Floc® Cellulose	PB-33	PB-40M
Celatom® Diatomaceous Earth	FW-12	FP-1
	FW-14	FP-2
	FW-18	FP-3
	FW-20	FP-4
	FW-40	FP-6
	FW-50	FP-12
	FW-60	FW-6
	FW-80	FW-12
		FW-14

Typical Physical Properties

	PB-20	NB-10	PB-33	PB-40	PB-40M	PB-100M	PB-200M	PB-300M
Bulk density (lb/ft³)	5 MAX	4.7 MAX	4.4 - 5.6	5 MAX	6.9 - 9.0	9.4-11.2	11.5-13.1	12.5-16.2
Wet cake density (lb/ft³)	7.3	7.3	7.1	7.3	10.9	11.5	13.1	14.1
Specific gravity	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58
pH	5.0 - 7.5	5.0 - 7.5	5.0 - 7.5	5.0 - 7.5	5.0 - 7.5	5.0 - 7.5	5.0 - 7.5	5.0 - 7.5
Minimum brightness	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
Maximum Moisture %	8	8	8	8	8	8	8	8
Average fiber length (microns)	350	350	300	320	200	120	60	30
Average fiber diameter (microns)	40	40	40	40	20	20	20	20
MAXIMUM RETAINED %								
32 micron screen	97	95	95	95	65	50	20	15
71 micron screen	-	-	-	-	-	-	-	0.5
100 micron screen	40	35	35	35	20	7	3	-
200 micron screen	-	-	-	-	-	0.05	0.5	-
300 micron screen	8	5	0.5	5	0.5	-	-	-

EP Minerals®

Phone: 775.366.7607
Fax: 775.824.7694
Email: inquiry.minerals@epminerals.com
Web: www.epminerals.com