FITOFLOC™

Predispersed precoat for fine to pre-sterilising filtration

PREDISPERSION

The predispersion technique, first set up by Dal Cin in 1983, increases the pre-coat efficacy.
The method of cellulose processing, open the fibres and keep them opened inserting water molecules between the microfibrils. So the pre-coat is wet: we call it "predispersed form".
Compared to traditional products the predispersed one has a higher adsorbing/filtering specif surface and its dispersion into a liquid (water, wine, juice) is definitely easier.

As far as the preservability of the product is concerned, Dal Cin successfully use exclusively and strictly physical techniques, applied "on line", avoiding any addition of chemicals to the product.

FITOFLOC

It's exclusively made of a very pure plant fibre, thanks to a particular technology set up in Dal Cin laboratories, that is a complete re-elaboration of the very intermolecular structure of the polyglucidic chains which cellulose molecules are composed of.
In order to avoid a rapid inactivation of the fibre, which would lead to a lower chemical-physical adsorbtion capacity, the product is set up through strictly physical techniques, through the separation of every single fibril.
So, these fibrils come to a typical, extended structure instead of the close one.
This modification makes the specific surface of cellulose itself wider, increasing therefore its capacity of retention.
Any kind of treatment with acids or chemicals is therefore avoided, so that the structural integrity of the fibre is assured; there is no risk of partial and dangerous "digestion" of fibres or risk of a break in the glucosidic chains.
The first result reached by Dal Cin, thanks to the modification of the **Fitofloc** fibre, is the increase of the active adsorbing surface:

Cotton	0,2 m^2/g
Crisotile asbestos	10-20 m^2/g
Fitofloc	15-25 m^2/g

The specific surface must also be active, by keeping the whole adsorbing capacity of cellulose unchanged. Cellulose must be kept "alive" and hydrophilic, and also considerably capable to swell into water.
As shown by the following table, with **Fitofloc** the filtering characteristics are improved.

	Fitofloc	Powder cellulose
Specific surface (m^2/g)	15-25	0,5-5
Swelling into water (1%)	30 times	2 times
Hydrophilicity	very high	medium
Chemicals release	Max traces	Max traces
Elasticity	high	low
Pressure (7 bar) resistance	high	none

DAL CIN

FILTERING PROPERTIES

Thanks to its fibrous polysaccharidic structure made of very small microfibrils, **Fitofloc** is particularly suitable for retention of unstable colloids.
The strong resistance to high-pressures allows to work without problems even in the most difficult situations, easily reaching 6-7 bars of differential pressure. This considerably helps to maintain the flow-capacity and the flow-rates per hour, which usually result very high and constant in time, even with dim and clogging filter products.
Fitofloc represents a real filter media and not a simple "aid", so that the body-feed is only an additional operation, just to help it in increasing the autonomy of filtration, and saving the flow-rates.
The products created by Dal Cin are two:

Fitofloc DC	for polishing filtration
Fitofloc Super	for very fining filtration

DOSAGE AND USE

For each version, doses can range from a minimum of 0,5 kg to a maximum of 2 kg per square meter of filtering surface; 1 kg is usually enough to obtain good results.
As soon as the product is dispersed into the wine, which is still to be filtered, it's possible to go on with forming the precoat on the filter elements.

PACKAGING

5 kg polythene bags in 20 kg boxes. After opening a bag, the whole content should be used immediately. If not, we recommend to seal it.

Keep in a cool place.

DAL CIN GILDO s.p.a.
20863 Concorezzo (MB)
Via I Maggio, 67 - Italy
Tel. +39 039 6049477- Fax +39 039 6886150
dalcin.com - enolia@dalcin.com