

Applications and uses of Cytec's SUPERFLOC® flocculants

Cytec makes over 100 flocculants in its line of SUPERFLOC® flocculants, in various plants around the world. The flocculants are used mainly for thickening ore pulps and concentrates such as:

- Coal tailings
- Copper, lead, and zinc concentrates
- Diamond and phosphate slimes
- Gold flotation tailings
- Iron ore slimes

The table on the following page illustrates the general range of flocculants available and highlights some of the many market applications of the products.

SUPERFLOC flocculants range from 100% anionic through non-ionic, to cationic. The anionic and non-ionic flocculants are polyacrylamide and acrylamide-acrylic acid copolymers with high molecular weights (5-20+ x 10⁶). They are available as emulsions or dry powders. The cationic flocculants cover a wide range of chemistries, molecular weights, and charge densities.

For guidance on choosing products that match your needs, contact Cytec's Research and Development, and Application Technology experts at the telephone numbers or e-mail address shown below. They will help you select the flocculant—or customize one—that best meets your performance criteria.

Your Cytec representative will be glad to evaluate your processing operation and suggest reagent formulations that solve production problems, increase yields, cut costs, and increase overall efficiency.

MCT-1046

Cytec—committed to your mining success.

PRODUCT	FORM	USES (RECOMMENDED DOSES) OF THE FLOCCULANT SERIES
SUPERFLOC Flocculants C 521 C 573 C 577 C 581 (cationic)	Fluent liquids	For thickening of coal tailings, iron ore slimes, mineral concentrates (9,005-0,1 lb/ton). As flocculant aids, in combination with anionic flocculants, for thickening and filtration of coal ore slimes (0,05-0,5 lb/ton). As flocculants for the clarification of open-pit mine drainage (0,01-0,1 lb/ton).
SUPERFLOC C Flocculants C 100 C 110 (Growing cationic load)	Freely fluent granules	For thickening of coal tailings, iron ore slimes, mineral concentrates (0,005-0,1 lb/ton) As flocculant aids, in combination with anionic flocculants and filtration of coal tailings (0,05-0,5 lb/ton). As flocculants for the clarification of open-pit drainage (0,01-0,1 lb/ton)
SUPERFLOC N Flocculants N 100 N 100 S N 300 (non ionic– growing load)	Freely fluent granules	For the thickening of ore pulps and concentrates, especially uranium gangues, iron ore slimes, mineral phosphat, acid residues of mine drainages and potassium ore clays (0,005-0,1 lb/ton). As dehydration aids in vacuum filtration, centrifugation, filtration press (0,01-0,5 lb/ton). To extract suspended solids in mine water, thus reducing the high pressure pumping attrition at the gold mine operations.
SUPERFLOC A Flocculants A 100 A 110 A 115 A 120 A 130 A 137 A 150 (growing anionic load)	Freely fluent granules	For the thickening of ore pulps and concentrates, especially coal gangues; copper, lead and zinc gangues and concentrates (0,005-0,1 lb/ton). As vacuum or pressure filtration aids of coal tailings and mineral concentrates (0,1-1,0 lb/ton). As dehydration aids to centrifugate gangue and mineral washing slimes (9,01-0,5 lb/ton).

Talk to Cytec about mining chemicals.

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