

Armoflote® 619

Selective potash flotation collector for halite (NaCl)

Armoflote 619 is a selective collector for flotation of halite from potash salts, especially potassium double salts such as carnallite, schoenite and kainite.

Armoflote 619 floats halite (NaCl) from potassium double salt as carnallite $KClMgCl_2 \cdot 6H_2O$ schoenite $K_2SO_4MgSO_4 \cdot 6H_2O$, and kainite $KClMgSO_4 \cdot 3H_2O$. It is also possible to separate halite from sylvite (KCl). Armoflote 619 works well in Mg^{2+} rich brines where standard alkylamine sylvite collectors have difficulties achieving good performance.

Halite often needs to be reduced when cold crystallization processes are used for production of potassium products as MOP (KCl) or SOP (K_2SO_4) from potassium double salts.

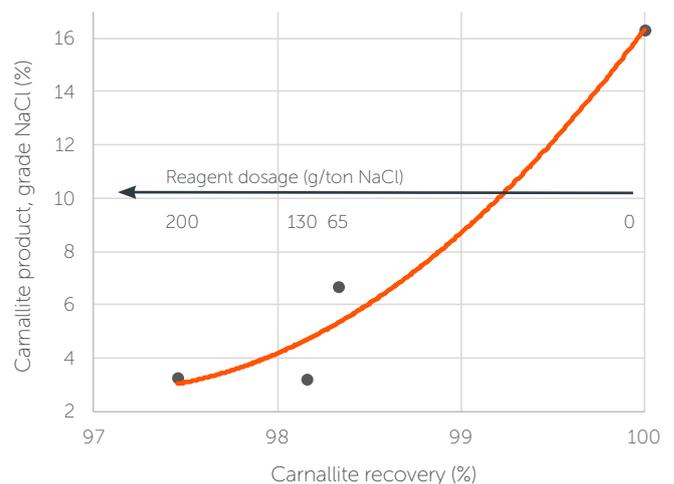
Double salts are difficult to concentrate by direct flotation. In this case, reverse flotation removing halite is a good solution for achieving the right composition for further processing. The final level of halite in the concentrate is adjusted by the dosage of Armoflote 619 and design of flotation line.

Benefits

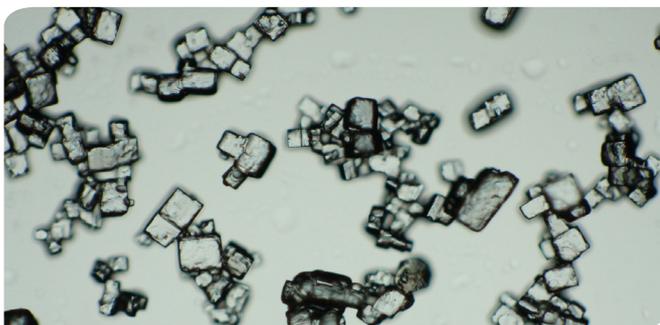
- Lower energy consumption when cold crystallisation process is used together with reverse flotation of halite compared with the hot crystallisation processes
- Improved process recovery and product quality when halite is reduced by reverse flotation

Performance

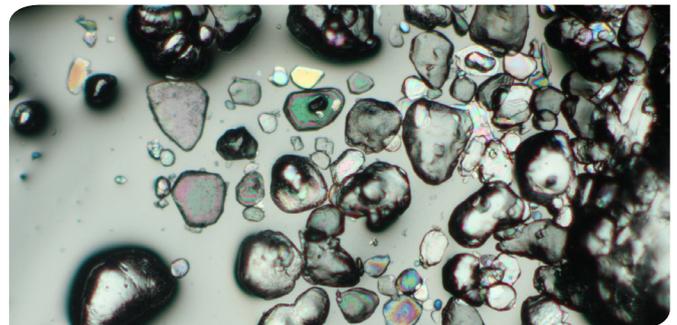
Reverse flotation of carnallite, removal of halite



Reagent	Armoflote 619		
Cell feed % NaCl	16.3	16.3	16.3
Reagent dosage g/ton NaCl	65	130	200
Concentrate (sink) % NaCl	6.7	3.2	3.3
Tailing (float) % KCl	3.2	2.7	3.6
Carnallite recovery %	98.3	98.2	97.5



Halite, tailing float product



Carnallite, concentrate sink product

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