

Title (en)

METHOD FOR INCREASING THE DRY RESIDUE IN PROCESSED CYCLONE DUST

Title (de)

VERFAHREN ZUR ERHÖHUNG DES TROCKENRÜCKSTANDES BEI NASS AUFGEARBEITETEM ZYKLONSTAUB DER CHLORIERUNG VON TITANERZ

Title (fr)

PROCEDE POUR AUGMENTER LE RESIDU SEC DANS DE LA POUSSIÈRE DE RECUPERATION SEPAREE PAR CYCLONE

Publication

**EP 1368503 A2 20031210 (DE)**

Application

**EP 02727201 A 20020308**

Priority

- DE 0200844 W 20020308
- DE 10111895 A 20010313

Abstract (en)

[origin: WO02072205A2] During processing of cyclone dust resulting from the chlorination of titanium ore, a disposable filter cake having a dry residue of greater than 40 % (without inert portions serving as a supporting structure), regardless of whether ilmenite, slag or natural or artificial rutile or mixtures thereof were used as a raw material, is obtained when one or a combination of the following method steps is carried out: before increasing to a pH value ranging from 9 to 12, a rapid neutralization step is conducted whereby for all volume elements of the liquid, the same precipitation conditions can be maintained in a pH range of 6 to 9; a (preferably anionic) flocculation aid is added before thickening, and; a (preferably cationic) flocculation aid is mixed into the slurry after thickening. All measures improve the flocculation and render the processing more economical.

[origin: WO02072205A2] During processing of cyclone dust (4) resulting from the chlorination of titanium ore, a disposable filter cake (26) having a dry residue of greater than 40 % (without inert portions serving as a supporting structure), regardless of whether ilmenite, slag or natural or artificial rutile or mixtures thereof were used as a raw material, is obtained when one or a combination of the following method steps is carried out: before increasing to a pH value ranging from 9 to 12 in a neutralization tank (13), a rapid neutralization step (12) is conducted whereby for all volume elements of the liquid, the same precipitation conditions can be maintained in a pH range of 6 to 9; a (preferably anionic) flocculation aid (22) is added before thickening, and; a (preferably cationic) second flocculation aid is mixed into the slurry after thickening. All measures improve the flocculation and render the processing more economical.

IPC 1-7

**C22B 34/12**

IPC 8 full level

**A62D 3/00** (2006.01); **A62D 3/33** (2007.01); **B09B 3/00** (2006.01); **C01G 23/07** (2006.01); **C02F 11/14** (2006.01); **C22B 7/00** (2006.01); **C22B 7/02** (2006.01); **C22B 34/12** (2006.01); **A62D 101/43** (2007.01)

CPC (source: EP US)

**A62D 3/33** (2013.01 - EP US); **C22B 7/008** (2013.01 - EP US); **C22B 7/02** (2013.01 - EP US); **C22B 34/1222** (2013.01 - EP US); **A62D 2101/43** (2013.01 - EP US); **Y02P 10/20** (2015.11 - EP US)

Citation (search report)

See references of WO 02072205A2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 02072205 A2 20020919**; **WO 02072205 A3 20030417**; CA 2438311 A1 20020919; DE 10111895 A1 20020919; EP 1368503 A2 20031210; JP 2004528162 A 20040916; MX PA03007247 A 20031204; TW I243697 B 20051121; US 2004136889 A1 20040715

DOCDB simple family (application)

**DE 0200844 W 20020308**; CA 2438311 A 20020308; DE 10111895 A 20010313; EP 02727201 A 20020308; JP 2002571160 A 20020308; MX PA03007247 A 20020308; TW 91104447 A 20020311; US 46790503 A 20031125