

Title (en)  
ACCELERATED CARBONATION PROCESS AND IMPLEMENTATION THEREOF IN A PROCESS FOR UPCYCLING CONCRETE WASTE AND INDUSTRIAL WASTE GASES

Title (de)  
BESCHLEUNIGTES KARBONISIERUNGSVERFAHREN UND DESSEN IMPLEMENTIERUNG IN EINEM VERFAHREN ZUR AUFWÄRTSVERWERTUNG VON BETONABFÄLLEN UND INDUSTRIEABGASEN

Title (fr)  
PROCÉDÉ DE CARBONATATION ACCÉLÉRÉE ET SA MISE EN OEUVRE DANS UN PROCÉDÉ DE VALORISATION DE DÉCHETS DE BÉTON ET DE REJETS GAZEUX INDUSTRIELS

Publication  
**EP 4380906 A1 20240612 (FR)**

Application  
**EP 22760763 A 20220801**

Priority  
• FR 2108401 A 20210802  
• FR 2022051534 W 20220801

Abstract (en)  
[origin: CA3225877A1] The invention relates to an accelerated carbonation process which comprises the following steps: a) providing recycled concrete aggregates with a particle size less than or equal to a value V1 of between 1 mm and 6 mm, in other words a 0/V1 sand; b) carrying out a separation step on the 0/V1 sand by defining a particle size cut-off with a value V2 of between 0.1 mm and 0.2 mm in such a way as to obtain: - a first fraction with a particle size less than V2, and - a second fraction with a particle size between V2 and V1; and c) subjecting the second fraction to an accelerated carbonation step in a dynamic carbonator (11) in order to obtain carbonated recycled concrete aggregates. The invention also relates to a process for upcycling concrete waste and industrial waste gases, in particular waste gases from cement works, using the accelerated carbonation process.

IPC 8 full level  
**C04B 20/02** (2006.01)

CPC (source: EP)  
**C04B 20/02** (2013.01)

C-Set (source: EP)  
**C04B 20/02 + C04B 18/167 + C04B 20/0076**

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**FR 3125815 A1 20230203**; BR 112024001992 A2 20240430; CA 3225877 A1 20230209; CN 117813271 A 20240402; EP 4380906 A1 20240612; MX 2024001621 A 20240228; WO 2023012424 A1 20230209

DOCDB simple family (application)  
**FR 2108401 A 20210802**; BR 112024001992 A 20220801; CA 3225877 A 20220801; CN 202280054146 A 20220801; EP 22760763 A 20220801; FR 2022051534 W 20220801; MX 2024001621 A 20220801