

Title (en)

METHOD AND APPARATUS FOR RECOVERING CARBON AND/OR GLASS FIBERS FROM A COMPOSITE MATERIAL

Title (de)

VERFAHREN UND VORRICHTUNG ZUR RÜCKGEWINNUNG VON GLASFASERN UND/ODER KOHLENSTOFF AUS KOMPOSITMATERIALIEN

Title (fr)

PROCEDE ET APPAREIL DESTINES A RECUPERER DES FIBRES DE CARBONE ET/OU DES FIBRES DE VERRE D'UN MATERIAU COMPOSITE

Publication

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Application

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Abstract (en)

[origin: WO03089212A1] The present invention relates to a method aimed at recovering carbon and/or glass fibers, by means of pyrolysis and subsequent upgrading treatment, from scraps and processing waste of composite material of fibers with FRP (Fiber Reinforced Plastics) plastic materials coming from different stages of industrial processing and from manufacts at end of life. The method provides the pyrolysis of scraps, waste and composite materials of FRP to eliminate the plastic matrix and a subsequent hot treatment, in presence of upgrading gas, of the recovered fibers for removing carbon residues. The fibers recovered from the treated manufacts can be reutilized in the manufacturing of products with mechanical features very similar to the ones of the rolled sections produced with virgin fibers. The cost of CF (carbon fibers), recovered with the proposed method, has been calculated to be equal to 20-30% of the one of the new carbon fibers.

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