

Title (en)
PROCESS AND PLANT FOR FILLING BOTTLES WITH GAS, FILLED BOTTLE AND USE THEREOF, STRUCTURAL COMPONENT WITH BOTTLE

Title (de)
VERFAHREN UND ANLAGE ZUR FLASCHENABFÜLLUNG MIT GAS, ABGEFÜLLTE FLASCHE UND IHRE ANWENDUNG, BAUGLIED MIT FLASCHE

Title (fr)
PROCEDE ET INSTALLATION DE REMPLISSAGE DE BOUTEILLES DE GAZ, BOUTEILLE REMPLIE ET SON UTILISATION, ET ORGANE DE MONTAGE DOTEE D'UNE BOUTEILLE

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Abstract (en)
[origin: WO2007097723A2] Process for filling bottles with gas (especially used PET bottles), in which first the closure is mounted on the bottle neck and, with the closure untightened, the bottle is filled by the action of external gas overpressure, especially through grooves in the thread part of the bottle neck. After the bottles are filled, the closure is tightened while the gas overpressure is still acting. The plant for filling bottles has a filling nozzle, in the opening of which the bottle neck is placed with attached but still untightened closure. The bottle filled with compressed gas (especially used PET bottle) is permanently sealed with a closure, the gas pressure within the bottle being at least 1 kPa. The bottle has a high stiffness and strength and can be used in structural components or as filling in the cavities of watercraft. The structural component comprises a bottle in the curing material, ideally in a concrete mix and/or polystyrene and/or polyurethane and/or cement-shavings mixture and/or Polyetylenemulsio®.

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