

## Title (en)

A creped sheet of absorbent paper, a roll for the embossing and a process incorporating the same

## Title (de)

Gekrepptes Blatt eines saugfähigen Papiers, Prägewalze wie auch entsprechendes Verfahren

## Title (fr)

Feuille de papier absorbant gaufré, cylindre pour le gaufrage et son procédé de mise en oeuvre

## Publication

**EP 1331308 A1 20030730 (FR)**

## Application

**EP 02290181 A 20020125**

## Priority

EP 02290181 A 20020125

## Abstract (en)

Absorbent paper, from a cellulose pulp, has at least one embossed zone (A1,A2) with projections on one surface matching the honeycomb recesses on the other surface. The honeycomb has a polygonal shape, and there is at least one zone (B) which is not embossed. The honeycombs (101,102) are deployed along at least one alignment. Absorbent paper, from a cellulose pulp, has at least one embossed zone (A1,A2) with projections on one surface matching the honeycomb recesses on the other surface. The honeycomb has a polygonal shape, and there is at least one zone (B) which is not embossed. The honeycombs (101,102) are deployed along at least one alignment. The sides of the facing honeycombs define a bridge with straight edges in a longer length than the width. They span preferably two non-embossed zones separated by an embossed zone. Disclosed is a cotton cellulose sheet comprising at least one first embossed area (A<sb>1</sb>, A<sb>2</sb>) with protrusions on one side and corresponding indentations on the other side. The indentations have an essentially polygon-shaped base. The inventive sheet comprises at least one second non-embossed area (B). According to the invention: - the indentations 101', 102' are arranged at least according to one alignment; - the sides facing two adjacent indentations define a bridge (P) with straight or substantially straight edges having a length L which is greater than the greatest width D thereof. One or several interlinked bridges define a path between preferably two second non-embossed areas (B) which are separated by at least one embossed area (A<sb>1</sb>, A<sb>2</sb>). The invention also relates to a cylinder for embossing such a sheet.

## Abstract (fr)

La feuille d'ouate de cellulose comprend au moins une première zone gaufrée (A1, A2) avec des protubérances sur une face correspondant à des alvéoles sur l'autre face. Les alvéoles ont une base de forme sensiblement polygonale, et la feuille comprend au moins une deuxième zone non gaufrée (B). Selon l'invention : les alvéoles 101', 102' sont disposés selon au moins un alignement, les côtés en vis à vis de deux alvéoles adjacents définissent un pont (P) à bords rectilignes ou sensiblement rectilignes de longueur L supérieure à sa plus grande largeur D, ledit pont reliant préférentiellement deux secondes zones non gaufrées (B) séparées par au moins une première zone gaufrée (A1, A2). <IMAGE>

## IPC 1-7

**D21H 27/02**; **B31F 1/07**; **B29C 59/04**

## IPC 8 full level

**B29C 59/04** (2006.01); **B31F 1/07** (2006.01); **D21H 27/02** (2006.01)

## CPC (source: EP US)

**B31F 1/07** (2013.01 - EP US); **D21H 27/02** (2013.01 - EP US); **B31F 2201/0723** (2013.01 - EP US); **B31F 2201/0733** (2013.01 - EP US); **B31F 2201/0738** (2013.01 - EP US); **B31F 2201/0743** (2013.01 - EP US); **B31F 2201/0756** (2013.01 - EP US); **B31F 2201/0758** (2013.01 - EP US); **Y10T 156/1023** (2015.01 - EP US); **Y10T 428/24479** (2015.01 - EP US); **Y10T 428/24612** (2015.01 - EP US)

## Citation (search report)

- [Y] EP 1101867 A1 20010523 - FORT JAMES FRANCE [FR]
- [YD] US 4293990 A 19811013 - POLLOCK STEPHEN F
- [Y] US 6173496 B1 20010116 - MAKOUI KAMBIZ B [US], et al
- [Y] FR 2773564 A1 19990716 - FORT JAMES FRANCE [FR]
- [A] US 3867225 A 19750218 - NYSTRAND ERNST DANIEL
- [A] US 6106928 A 20000822 - LAURENT PIERRE [FR], et al
- [A] US 6235373 B1 20010522 - GRAFF PIERRE [FR]
- [A] US 3708366 A 19730102 - DONNELLY H

## Cited by

CN114395940A; EP1946920A3; EP1731296A3; US10006172B2; EP1520930A1; FR2860527A1; EP2219575A4; US7540939B2; US8470431B2; WO2005033408A3; US7799167B2; US7967951B2; US10253459B2; US10669674B2

## 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)

**EP 1331308 A1 20030730**; AT E550490 T1 20120415; CA 2472318 A1 20030731; CA 2472318 C 20110315; EA 006173 B1 20051027; EA 200400863 A1 20050224; EP 1472411 A1 20041103; EP 1472411 B1 20120321; ES 2384238 T3 20120702; MX PA04007051 A 20050617; NO 20034234 D0 20030923; NO 20034234 L 20031125; NO 333889 B1 20131014; US 2005067089 A1 20050331; US 7540939 B2 20090602; WO 03062530 A1 20030731

## DOCDB simple family (application)

**EP 02290181 A 20020125**; AT 03712280 T 20030124; CA 2472318 A 20030124; EA 200400863 A 20030124; EP 03712280 A 20030124; ES 03712280 T 20030124; FR 0300229 W 20030124; MX PA04007051 A 20030124; NO 20034234 A 20030923; US 50231604 A 20040817