

Title (en)  
Method of making a thick and smooth embossed tissue

Title (de)  
Verfahren zum Herstellen einer dicken und glatten geprägten Bahn

Title (fr)  
Procédé pour la fabrication d'une bande gaufrée épaisse et lisse

Publication  
**EP 1232854 B1 20050427 (EN)**

Application  
**EP 01103798 A 20010216**

Priority  
EP 01103798 A 20010216

Abstract (en)  
[origin: EP1232854A1] Method for making a tissue paper product from a tissue paper web, the method comprising the steps of: passing the tissue paper web through an embossing nip formed between a first and a second embossing roll, wherein at least one of the embossing rolls comprises at least 30 embossing elements per square centimetre, passing the tissue paper web through a calendering nip formed between a first and a second calendering roll, wherein the first and the second calendering roll are in contact with the tissue paper web over a contact length measured parallel to the direction of the axis of the first calendering roll exert a pressure onto the paper web of at least 50 N per centimetre of the contact length. Further claimed are paper tissue products made in accordance with the above method.

IPC 1-7  
**B31F 1/07**

IPC 8 full level  
**A47K 7/00** (2006.01); **B31F 1/07** (2006.01); **D21G 1/00** (2006.01); **D21H 27/00** (2006.01)

CPC (source: EP KR)  
**B31F 1/07** (2013.01 - EP KR); **B31F 2201/0733** (2013.01 - EP); **B31F 2201/0758** (2013.01 - EP)

Citation (examination)

- DE 19824825 A1 19991209 - MAKSIMOW ALEXANDER [DE]
- DE 19860687 A1 20000706 - VOITH SULZER PAPIERMASCH GMBH [DE]
- DE 1804418 A1 19700716 - PROCTER & GAMBLE
- EP 0498623 A2 19920812 - JAMES RIVER CORP [US]

Cited by  
US7771566B2; US7407560B2; USRE43095E; US2022333314A1; US7374638B2; US7435313B2; WO2006037365A1; WO2021061747A1;  
WO2005035857A3; US7413629B2; US7311800B2; US7314663B2; US7314664B2

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 1232854 A1 20020821; EP 1232854 B1 20050427; EP 1232854 B2 20080709**; AT E294061 T1 20050515; BR 0207364 A 20040225;  
CA 2436514 A1 20020829; CA 2436514 C 20081118; CN 1491159 A 20040421; DE 60110362 D1 20050602; DE 60110362 T2 20060119;  
DE 60110362 T3 20090115; JP 2004518562 A 20040624; KR 20030087626 A 20031114; MX PA03007329 A 20031204;  
WO 02066240 A1 20020829; WO 02066240 A8 20031106

DOCDB simple family (application)  
**EP 01103798 A 20010216**; AT 01103798 T 20010216; BR 0207364 A 20020215; CA 2436514 A 20020215; CN 02804617 A 20020215;  
DE 60110362 T 20010216; JP 2002565780 A 20020215; KR 20037009635 A 20030721; MX PA03007329 A 20020215; US 0204615 W 20020215