

Title (en)

Method and device for embossing and printing a web, such as paper or nonwoven, and web material so produced

Title (de)

Verfahren und Vorrichtung zum Prägen und Drucken einer Bahn von Papier oder Vliesstoff, und so hergestellte Bahnen

Title (fr)

Procédé et dispositif pour gaufrer et imprimer une bande de papier ou non-tissé, et bandes ainsi obtenues

Publication

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Application

EP 02445134 A 20021015

Priority

SE 0103469 A 20011017

Abstract (en)

A web (1) of flexible material, such as paper and nonwoven materia is embossed by printing the web (1) in a selected pattern by bringing it into a first nip between an impression roll (3) and a printing roll (14) carrying a colorant in a selected pattern; subsequently embossing the web by bringing it into a second nip between a pattern roll (2) and said impression roll (3), said pattern roll having a three dimensional pattern of alternating raised (4) and recessed portions (5), said three dimensional pattern being interrupted by relatively smooth areas (6), so that the web will be embossed in selected areas (7) while leaving other areas (8) substantially unembossed; said pattern roll (2) and printing roll (14) being synchronized so that embossing occurs mainly in the areas of the web that are not printed in said selected pattern. The printing and embossing steps may also be reversed so that the web is embossed before printing. <IMAGE>

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IPC 8 full level

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Citation (search report)

- [A] US 2746387 A 19560522 - NEUMANN JOHN W
- [A] US 6183671 B1 20010206 - STAUFFACHER JAMES H [US], et al
- [DA] US 5339730 A 19940823 - RUPPEL REMY [FR], et al
- [DA] US 3867225 A 19750218 - NYSTRAND ERNST DANIEL
- [DA] US 3414459 A 19681203 - RONALD WELLS EDWARD

Cited by

CN110712423A; DE102009000445A1; FR2862017A1; CN102909946A; EP1527898A1; AU2004291216B2; CN103946447A; CN111794003A; US6926950B2; WO2004057110A1; WO2006036586A3; US7384505B2; US7799168B2; US6983686B2; US9181655B2; WO2005049326A1; WO2013085456A1; US8911594B2; US9057157B2; US9410287B2

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