

Title (en)  
METHOD FOR PREPARING PAPER HAVING TRANSPARENT PORTIONS, AND PAPER HAVING TRANSPARENT PORTIONS PREPARED USING SAID METHOD

Title (de)  
VERFAHREN ZUR HERSTELLUNG VON PAPIER MIT TRANSPARENTEN BEREICHEN UND MIT DIESEM VERFAHREN HERGESTELLTES PAPIER MIT TRANSPARENTEN BEREICHEN

Title (fr)  
PROCÉDÉ DE FABRICATION DE PAPIER AVEC DES SECTIONS TRANSPARENTES, ET PAPIER AVEC DES SECTIONS TRANSPARENTES FABRIQUÉ SELON CE PROCÉDÉ

Publication  
**EP 3178659 A4 20180321 (EN)**

Application  
**EP 15829700 A 20150729**

Priority  
• RU 2014132441 A 20140806  
• RU 2015000477 W 20150729

Abstract (en)  
[origin: EP3178659A2] The invention relates to the pulp and paper industry, and specifically to the manufacture of paper for producing banknotes, checks, passports, identity cards, and other documents requiring counterfeit protection. The method includes locally impregnating portions of paper, said portions having certain shapes, using a solution of compounds with epoxy groups in the presence of a curing agent. According to the invention, the compounds with epoxy groups may be glycidyl ethers of monohydric and polyhydric alcohols having a dynamic viscosity at a temperature of 25°C of no more than 150 mPa·s. The technical result consists in producing transparent portions on paper without forming, on the surface of the paper, hard films which would hinder a subsequent printing process.

IPC 8 full level  
**B42D 25/415** (2014.01); **B41M 3/00** (2006.01); **B42D 25/24** (2014.01); **B42D 25/29** (2014.01); **B42D 25/351** (2014.01); **B42D 25/36** (2014.01); **D21H 17/06** (2006.01); **D21H 19/16** (2006.01); **D21H 21/26** (2006.01); **D21H 27/00** (2006.01)

CPC (source: EP KR)  
**B41D 3/00** (2013.01 - EP KR); **B42D 25/24** (2014.10 - EP); **B42D 25/29** (2014.10 - EP); **B42D 25/351** (2014.10 - EP KR); **B42D 25/36** (2014.10 - EP); **B42D 25/415** (2014.10 - EP); **D21H 17/06** (2013.01 - EP KR); **D21H 19/16** (2013.01 - EP); **D21H 21/26** (2013.01 - EP); **D21H 21/48** (2013.01 - KR); **D21H 23/50** (2013.01 - KR); **D21H 27/00** (2013.01 - EP)

Citation (search report)  
• [AD] US 3140959 A 19640714 - VAURIO FRANS V E  
• [A] US 5334455 A 19940802 - NOREN GERRY K [US], et al  
• [A] WO 2011070923 A1 20110616 - OJI PAPER CO [JP], et al  
• [A] AU 2010247266 A1 20111208 - OBERTHUR TECHNOLOGIES  
• See references of WO 2016022046A2

Cited by  
SE2050456A1; DE102020108080A1; DE102020108081A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3178659 A2 20170614; EP 3178659 A4 20180321; EP 3178659 B1 20190724**; KR 102185111 B1 20201202; KR 20170041818 A 20170417; RU 2568398 C1 20151120; WO 2016022046 A2 20160211; WO 2016022046 A3 20160317

DOCDB simple family (application)  
**EP 15829700 A 20150729**; KR 20177006296 A 20150729; RU 2014132441 A 20140806; RU 2015000477 W 20150729