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(54) Title: PRODUCT COATED WITH A COMPOSITE MAX-MATERIAL AND METHOD OF ITS PRODUCTION

(57) Abstract: A coated product is disclosed consisting of a metallic substrate and a composite coating wherein at least one component of the composite coating is of MAX material type. Furthermore, a method of producing such a coated product is disclosed using vapour deposition technique in a continuous roll to roll process.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE2005/001792

A. CLASSIFICATION OF SUBJECT MATTER

IPC: see extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: C23C, B32B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03046247 A1 (ABB AB), 5 June 2003 (05.06.2003), page 3, line 8 - line 14; page 3, line 23 - page 4, line 6; page 4, line 8 - line 13, page 5, line 22 - page 6, line 9; claims 19-21	1,3-5,8-12, 14-17,18
Y	--	2,6,7,13
Y	WO 0100402 A1 (LJUNGCRANTZ, HENRIK ET AL), 4 January 2001 (04.01.2001)	2,6,7,13
A	-- -----	1,3-5,8-12, 14-17,18

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Cited literature, if any, will be enclosed in paper form.

INTERNATIONAL SEARCH REPORT
Information on patent family members

04/03/2006

International application No.
PCT/SE2005/001792

WO	03046247	A1	05/06/2003	AU	2002365543	A	00/00/0000
				CN	1617945	A	18/05/2005
				EP	1448804	A	25/08/2004
				US	20050076825	A	14/04/2005

WO	0100402	A1	04/01/2001	AU	3093300	A	12/07/2000
				AU	5863200	A	31/01/2001
				EP	1142373	A	10/10/2001
				JP	2002534021	T	08/10/2002
				SE	513219	C	31/07/2000
				SE	9902411	A	31/07/2000
