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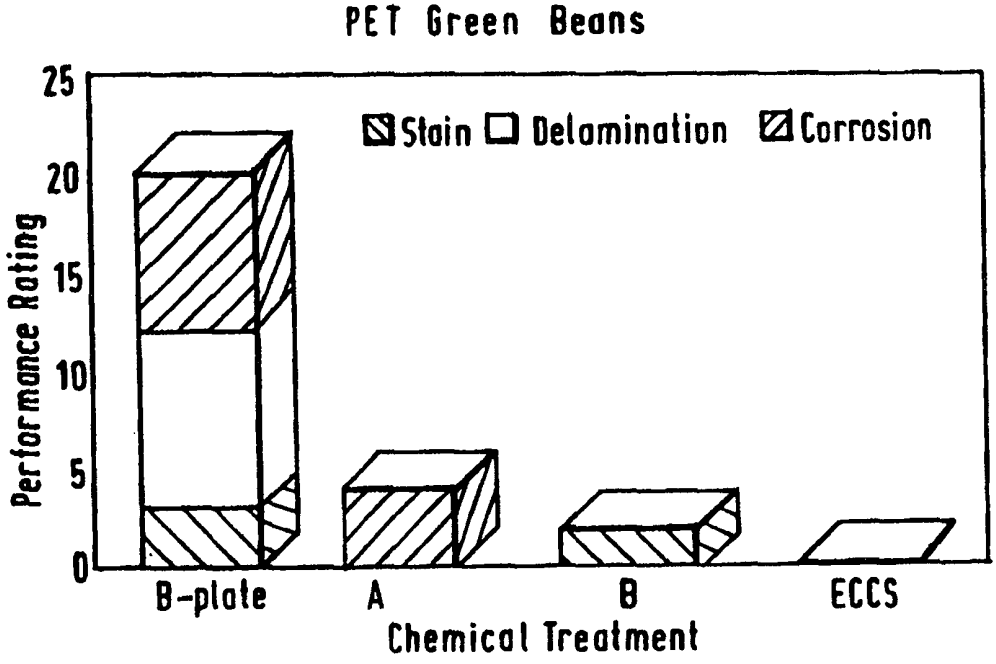
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(54) Title: LAMINATED METAL STRIP



(57) Abstract

A process for producing laminated metal strip which comprises the steps of chemically treating the strip to form on at least one of its surfaces a non–metallic coating, and applying to that coated surface a coating of a thermoplastic resin to form a layer thereon.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 99/00567

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 B05D7/14 B05D3/10

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 6 B05D

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

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97 35716 A (TOYO KOHAN CO LTD ;KOMAI MASAO (JP); SHIRAI SHINJI (JP); SHIMIZU K) 2 October 1997 (1997-10-02)	1,2,4, 7-16, 22-25, 27-35
E	abstract -& GB 2 329 608 A (TOYO KOHAN CO LTD) 31 March 1999 (1999-03-31)	1,2,4, 7-16, 22-25, 27-35
	the whole document	

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
8 July 1999	08.10.99

Name and mailing address of the ISA	Authorized officer
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INTERNATIONAL SEARCH REPORT

Ir ational Application No
PCT/GB 99/00567

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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INTERNATIONAL SEARCH REPORT

Int tional Application No
PCT/GB 99/00567

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 99/00567

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

SEE ANNEX

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-15,22,24-35 and partially 16,17,18

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claims: 1-15,16(partially),17(partially),18(partially),22, 24-35

Process for making a laminated metal strip comprising the steps of chemically treating the strip to form on at least one of its surface a non-metallic coating, and applying to that coated surface a coating of a thermoplatic resin to form a layer thereon. The chemical coating comprising phosphate oxyanion.

2. Claims: 1-15,16(partially),17(partially),18(partially),22, 24-35

Process for making a laminated metal strip comprising the steps of chemically treating the strip to form on at least one of its surface a non-metallic coating, and applying to that coated surface a coating of a thermoplatic resin to form a layer thereon. The chemical coating comprising chromate oxyanion.

3. Claims: 1-15,16(partially),17(partially),18(partially),22, 24-35

Process for making a laminated metal strip comprising the steps of chemically treating the strip to form on at least one of its surface a non-metallic coating, and applying to that coated surface a coating of a thermoplatic resin to form a layer thereon. The chemical coating comprising oxalate oxyanion.

4. Claims: 1-15,16(partially),17(partially),18(partially),22, 24-35

Process for making a laminated metal strip comprising the steps of chemically treating the strip to form on at least one of its surface a non-metallic coating, and applying to that coated surface a coating of a thermoplatic resin to form a layer thereon. The chemical coating comprising arsenate oxyanion.

5. Claims: 1-15,16(partially),17(partially),18(partially),22, 24-35

Process for making a laminated metal strip comprising the steps of chemically treating the strip to form on at least one of its surface a non-metallic coating, and applying to

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

that coated surface a coating of a thermoplatic resin to form a layer thereon. The chemical coating comprising oxyanions differing from chromates, phosphates, oxalates and arsenates.

6. Claims: 1-15,19(partially),23-35

Process for making a laminated metal strip comprising the steps of chemically treating the strip to form on at least one of its surface a non-metallic coating, and applying to that coated surface a coating of a thermoplatic resin to form a layer thereon. The chemical coating comprising yttrium.

7. Claims: 1-15,19(partially),23-35

Process for making a laminated metal strip comprising the steps of chemically treating the strip to form on at least one of its surface a non-metallic coating, and applying to that coated surface a coating of a thermoplatic resin to form a layer thereon. The chemical coating comprising elements in the lanthanum series of the periodic table.

8. Claims: 1-15,19(partially),20,21,23-35

Process for making a laminated metal strip comprising the steps of chemically treating the strip to form on at least one of its surface a non-metallic coating, and applying to that coated surface a coating of a thermoplatic resin to form a layer thereon. The chemical coating comprising silanes.

9. Claims: 1-15,19(partially),23-35

Process for making a laminated metal strip comprising the steps of chemically treating the strip to form on at least one of its surface a non-metallic coating, and applying to that coated surface a coating of a thermoplatic resin to form a layer thereon. The chemical coating comprising azoles.

INTERNATIONAL SEARCH REPORT

Information on patent family members

In' ıtional Application No
PCT/GB 99/00567

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