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(54) **PROCESS FOR PRODUCING A FLEXIBLE ABRASIVE ARTICLE, THE ARTICLE THUS OBTAINED AND AN AQUEOUS SOLUTION SUITABLE FOR SUCH A PROCESS**

(57) The present invention relates to a process for producing a flexible abrasive article (40), in sheet or film form, wherein an aqueous suspension SA is layen on a film FB of elastomeric or thermoplastic polymer, the

aqueous suspension SA containing elastomeric or thermoplastic polymers PSA of same chemical composition as the film FB.

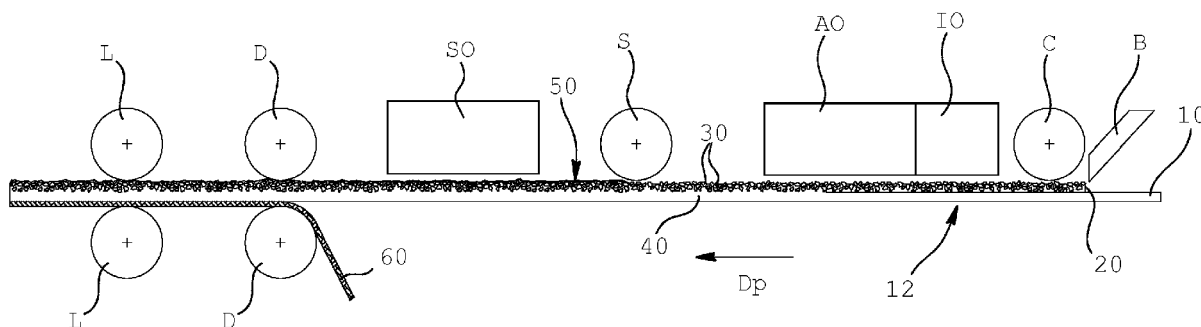


Fig. 3a



EUROPEAN SEARCH REPORT

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X A	WO 2016/106212 A1 (SAINT GOBAIN ABRASIVES INC [US]; SAINT GOBAIN ABRASIFS SA [FR]) 30 June 2016 (2016-06-30) * abstract; figures 1-2 * * page 4, line 18 - line 32 * * page 23, line 20 - page 25, line 35 * -----	11,12 1-10	
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 24 August 2018	Examiner Arhire, Irina
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

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Application Number
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			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
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Munich		24 August 2018	Arhire, Irina
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-12

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



LACK OF UNITY OF INVENTION
SHEET B

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-12

A process for producing a flexible abrasive article in sheet or film form, by layering an aqueous suspension comprising polymers and abrasive particles on a film, wherein additional steps a) and c) are defined and characterized in that the film is formed with polymers that have the same chemical composition as the polymers present in the aqueous suspension. (Claim 1)

Problem to be solved: how to provide a durable abrasive article with a simplified manufacturing process.

2. claims: 13, 14

An aqueous suspension comprising polymers and abrasive particles, characterized in that the chemical composition of the components is defined by (parts by weight):

- from 30 to 80 parts of water,
- from 2 to 20 parts of polymers,
- from 10 to 30 parts of abrasive particles,
- from 4 to 15 parts of both rheological additives and suspending agent, and
- 3 to 20 parts of a functionalized additive selected from paraffin hydrocarbons and saturated fatty acids and their derivatives. (claim 13)

Problem to be solved: how to produce a stable polymeric suspension containing abrasive granulate.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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24-08-2018

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82