

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year) **See form PCT/ISA/210**

Applicant's or agent's file reference 2237/BrM/WeS		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/EP2005/007513	International filing date (day/month/year) 12.07.2005	Priority date (day/month/year) 23.07.2004
International Patent Classification (IPC) or both national classification and IPC C08F265/06		
Applicant RÖHM GMBH		

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I	Basis of this opinion
1.	With regard to the language , this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
<input type="checkbox"/>	This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2.	With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
a.	type of material
<input type="checkbox"/>	a sequence listing
<input type="checkbox"/>	table(s) related to the sequence listing
b.	format of material
<input type="checkbox"/>	in written format
<input type="checkbox"/>	in computer readable form
c.	time of filing/furnishing
<input type="checkbox"/>	contained in the international application as filed.
<input type="checkbox"/>	filed together with the international application in computer readable form.
<input type="checkbox"/>	furnished subsequently to this Authority for the purposes of search.
3.	<input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4.	Additional comments:

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																								
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2. Citations and explanations:	<p>1. US A 5,539,073 (D1) discloses a core/shell polymerisate consisting of latex particles with a particle size greater than 250 nm. In example 72 (table 10c), a core/shell polymerisate is disclosed where the core consists of:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">a) methyl methacrylate (MMA; MW=100)</td> <td style="width: 20%; text-align: right; padding: 2px;">228.59 g (48.6 mol%)</td> </tr> <tr> <td style="padding: 2px;">b) ethyl hexacrylate (EHA; MW=184)</td> <td style="text-align: right; padding: 2px;">445.05 g (51.3 mol%)</td> </tr> <tr> <td style="padding: 2px;">c) trimethylolpropane triacrylate (TMPTA; MW = 268)</td> <td style="text-align: right; padding: 2px;">1.03 g (0.08 mol%)</td> </tr> </table> <p>and the shell consists of</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">a)' MMA</td> <td style="width: 20%; text-align: right; padding: 2px;">177.34 g (54.1 mol%)</td> </tr> <tr> <td style="padding: 2px;">b)' EHA</td> <td style="text-align: right; padding: 2px;">162.50 g (26.9 mol%)</td> </tr> <tr> <td style="padding: 2px;">c)' t-butylaminoethyl methacrylate (MW = 157)</td> <td style="text-align: right; padding: 2px;">23.99 g (4.6 mol%)</td> </tr> <tr> <td style="padding: 2px;">d)' allyl methacrylate (MW = 102)</td> <td style="text-align: right; padding: 2px;">47.97 g (14.4 mol%)</td> </tr> </table> <p>The latexes can contain softeners and be used directly or dried. They are used as coatings for metal (column 16, lines 17-51).</p> <p>Independent claims 1, 11, 12 and 16 are therefore not novel over D1 (PCT Article 33(2)).</p>	a) methyl methacrylate (MMA; MW=100)	228.59 g (48.6 mol%)	b) ethyl hexacrylate (EHA; MW=184)	445.05 g (51.3 mol%)	c) trimethylolpropane triacrylate (TMPTA; MW = 268)	1.03 g (0.08 mol%)	a)' MMA	177.34 g (54.1 mol%)	b)' EHA	162.50 g (26.9 mol%)	c)' t-butylaminoethyl methacrylate (MW = 157)	23.99 g (4.6 mol%)	d)' allyl methacrylate (MW = 102)	47.97 g (14.4 mol%)										
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

2. EP-A-1 162 217 (D2; cited in the application), example A11 describes core/shell polymerisates that correspond to the polymerisates in the application. The core of the known polymerisates possesses an N-containing compound, however, that should be excluded from the core according to the application (claims; paragraph 113).

Claims 1-16 are therefore novel over D2 (PCT Article 33 (2)).

The problem of the present application is to improve storage stability, abrasion resistance and flexibility under cold conditions, and favourable softener retention.

Comparative examples were used in the application to demonstrate that the properties of core/shell polymerisates that do not possess any N-containing compound are less effective in solving the problem than the polymerisates according to the invention. However, these comparative examples do not represent the closest prior art.

The application does not disclose which technical effects are achieved by omitting the N-containing compound from the core of the core/shell polymerisate in D2. This measure appears to be arbitrary and is therefore not based on an inventive step.

Therefore claims 1-16 do not meet the requirements of PCT Article 33(3)).

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3. A core/shell polymerisate is also disclosed in US A 3,970,725 (D3), in example 1 that essentially corresponds to the polymerisate in the application; however, its core and shell contain too many additional copolymerisable monomers (abstract; column 10, lines 24-27).

Novelty therefore exists over D3 (PCT Article 33(2)).

The objection presented under point 2 also applies to D3:

It is not clear from the application which technical problem is solved by reducing the quantity of additional copolymerisable monomers. A reduction of this quantity appears to be arbitrary and is not based on an inventive step.

Therefore claim 1 does not meet the requirements of PCT Article 32(3).

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The description on page 16, third paragraph (in the case of a plurality of shells, the quantity applies to all shells) appears to contradict claim 1 (the quantities apply to a single shell) (PCT Article 6).