

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference G204049	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/JP2004/015258	International filing date ( <i>day/month/year</i> ) 15 October 2004 (15.10.2004)	Priority date ( <i>day/month/year</i> ) 17 October 2003 (17.10.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant ZEON CORPORATION			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
<p>3. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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	Date of issuance of this report 27 July 2006 (27.07.2006)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  <b>Masashi Honda</b>
Facsimile No. +41 22 338 82 70	e-mail: pt08@wipo.int

**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)	<b>16.11.2004</b>
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Applicant's or agent's file reference <b>G204049</b>	<b>FOR FURTHER ACTION</b> See paragraph 2 below
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International application No. <b>PCT/JP2004/015258</b>	International filing date (day/month/year) <b>15.10.2004</b>	Priority date (day/month/year) <b>17.10.2003</b>
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International Patent Classification (IPC) or both national classification and IPC  
**C08L9/02, C08L33/06, C08L33/20**

Applicant  
**ZEON CORPORATION**

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/JP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/015258

Box No. I	Basis of this opinion
1.	With regard to the <b>language</b> , 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 <b>nucleotide and/or amino acid sequence</b> 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:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/JP2004/015258
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<b>Box No. V</b>	<b>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>																											
1. Statement	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; padding: 2px;">Novelty (N)</td> <td style="width: 60%; padding: 2px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="padding: 2px;"><u>1-5</u></td> <td style="width: 30%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table> </td> <td style="width: 10%;"></td> </tr> <tr> <td style="padding: 2px;">Inventive step (IS)</td> <td style="padding: 2px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="padding: 2px;"><u>1-5</u></td> <td style="width: 30%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table> </td> <td style="width: 10%;"></td> </tr> <tr> <td style="padding: 2px;">Industrial applicability (IA)</td> <td style="padding: 2px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="padding: 2px;"><u>1-5</u></td> <td style="width: 30%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table> </td> <td style="width: 10%;"></td> </tr> </table>	Novelty (N)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="padding: 2px;"><u>1-5</u></td> <td style="width: 30%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table>	Claims	<u>1-5</u>	YES	Claims	_____	NO		Inventive step (IS)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="padding: 2px;"><u>1-5</u></td> <td style="width: 30%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table>	Claims	<u>1-5</u>	YES	Claims	_____	NO		Industrial applicability (IA)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="padding: 2px;"><u>1-5</u></td> <td style="width: 30%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="padding: 2px;">_____</td> <td style="padding: 2px;">NO</td> </tr> </table>	Claims	<u>1-5</u>	YES	Claims	_____	NO	
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2. Citations and explanations:	<p>Document 1: JP 2002-47379 A (Nippon Zeon Co., Ltd.), 12 February 2002</p> <p>Document 2: JP 9-309975 A (Nippon Zeon Co., Ltd.), 2 December 1997</p> <p>Document 3: US 4654404 A (Nippon Zeon Co., Ltd.), 31 March 1987</p> <p>Claims 1-3</p> <p>The inventions set forth in claims 1-3 involve an inventive step relative to documents 1-3, cited in the international search report.</p> <p>Document 1-3 do not disclose a polymer alloy constituted from (A) an <math>\alpha, \beta</math>-ethylenic unsaturated nitrile/conjugated diene copolymer rubber having a number average molecular weight of 50,000-150,000, (B) an acrylic copolymer containing <math>\alpha, \beta</math>-ethylenic unsaturated nitrile monomer units, and (C) an <math>\alpha, \beta</math>-ethylenic unsaturated nitrile/conjugated diene copolymer rubber having a number average molecular weight of 1000-20,000; and due to this feature these inventions in the present application offer the outstanding advantageous effect that the alloys have outstanding oil resistance and ozone resistance and outstanding resistance to solvent</p>																											

WRITTEN OPINION OF THE  
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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

cracking.

Claim 4

The invention set forth in claim 4 involves an inventive step relative to documents 1-3, cited in the international search report.

Document 1-3 do not disclose crosslinked material formed by crosslinking a polymer alloy constituted from (A) an  $\alpha, \beta$ -ethylenic unsaturated nitrile/conjugated diene copolymer rubber having a number average molecular weight of 50,000-150,000, (B) an acrylic copolymer containing  $\alpha, \beta$ -ethylenic unsaturated nitrile monomer units, and (C) an  $\alpha, \beta$ -ethylenic unsaturated nitrile/-conjugated diene copolymer rubber having a number average molecular weight of 1000-20,000; and due to this feature these inventions in the present application offer the outstanding advantageous effect that the material has outstanding oil resistance and ozone resistance and outstanding resistance to solvent cracking.

Claim 5

The invention set forth in claim 5 involves an inventive step relative to documents 1-3, cited in the international search report.

Document 1-3 do not disclose industrial components constituted from crosslinked material formed by crosslinking a polymer alloy constituted from (A) an  $\alpha, \beta$ -ethylenic unsaturated nitrile/conjugated diene copolymer rubber having a number average molecular weight of 50,000-150,000, (B) an acrylic copolymer containing  $\alpha, \beta$ -ethylenic unsaturated nitrile monomer units, and (C)

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an  $\alpha, \beta$ -ethylenic unsaturated nitrile/conjugated diene copolymer rubber having a number average molecular weight of 1000-20,000; and due to this feature these inventions in the present application offer the outstanding advantageous effect that the components have outstanding oil resistance and ozone resistance and outstanding resistance to solvent cracking.