The formulations of this invention can be applied by dip, spray and painting processes.

**Title:** ELASTOMERIC COATINGS HAVING HYDROPHOBIC AND/OR OLEOPHOBIC PROPERTIES

**Abstract:** This disclosure deals with novel formulations to create highly durable hydrophobic, superhydrophobic, oleophobic and/or superoleophobic surfaces that can be nearly transparent. The formulations of this invention can be applied by dip, spray and painting processes.
**INTERNATIONAL SEARCH REPORT**

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(8) - C09D 109/06 (2013.01)

USPC - 442/80

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(8) - C08L 53/00, 53/02; C09D 5/00, 109/00, 109/06 (2013.01)

USPC - 427/402, 407.1; 428/323; 442/79, 80

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

CPC - C08L 53/00, 53/005, 53/02, 53/025; C09D 5/00, 109/00, 109/06 (2013.01)

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

Orbit, Google Patents, Google Scholar

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>KR 10-0909240 B1 (LEE) 29 October 2010 (29.10.2010), see machine translation</td>
<td>1-40</td>
</tr>
<tr>
<td>Y</td>
<td>US 5,658,969 A (GERACE) 19 August 1997 (19.08.1997) entire document</td>
<td>18</td>
</tr>
<tr>
<td>Y</td>
<td>US 5,312,573 A (ROSENBAUM et al) 17 May 1994 (17.05.1994) entire document</td>
<td>40</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

**Date of the actual completion of the international search**

13 December 2013

**Date of mailing of the international search report**

23 DEC 2013

**Name and mailing address of the ISA/US**

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents

P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-3201

**Authorized officer:**

Blaine R. Copenhaver

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774
### Box No. II  Observations where certain claims were found unsearchable (Continuation of item 2 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.: 41-62**  
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box No. III  Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

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

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 additional fees, this Authority did not invite payment of additional fees.**

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.:**

### Remark on Protest

- **The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.**
- **The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.**
- **No protest accompanied the payment of additional search fees.**

Form PCT/ISA/210 (continuation of first sheet (2)) (July 2009)