

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Terrence E Hogan</td> <td>01/23/2012</td> </tr> <tr> <td>Xiao-Dong Pan</td> <td>01/23/2012</td> </tr> <tr> <td>Kenji Nakatani</td> <td>01/26/2012</td> </tr> <tr> <td>Ryota Tamate</td> <td>03/02/2012</td> </tr> </tbody> </table>		Name	Execution Date	Terrence E Hogan	01/23/2012	Xiao-Dong Pan	01/23/2012	Kenji Nakatani	01/26/2012	Ryota Tamate	03/02/2012
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Terrence E Hogan	01/23/2012										
Xiao-Dong Pan	01/23/2012										
Kenji Nakatani	01/26/2012										
Ryota Tamate	03/02/2012										
RECEIVING PARTY DATA											
Name:	Bridgestone Corporation										
Street Address:	10-1, Kyobashi 1-Chome, Chuo-Ku										
City:	Tokyo										
State/Country:	JAPAN										
Postal Code:	104										
PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13337610</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13337610						
Property Type	Number										
Application Number:	13337610										
CORRESPONDENCE DATA											
Fax Number:	(330)379-4064										
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Correspondent Name:	Michelle R Davis										
Address Line 1:	10 East Firestone Blvd.										
Address Line 4:	Akron, OHIO 44317										
ATTORNEY DOCKET NUMBER:	P10054US2A										
NAME OF SUBMITTER:	Michelle R. Davis										
Total Attachments: 1 source=Assignment#page1.tif											

CH \$40.00 13337610

ASSIGNMENT

We, Terrence E. Hogan, Xiao-Dong Pan, Kenji Nakatani, and Ryota Tamate, have made an invention which now is described and claimed in an application for patent entitled **FUNCTIONALIZED POLYMERS AND VULCANIZATES WITH REDUCED HYSTERETIC LOSS**, which application [] is being executed and filed concurrently herewith. [X] was filed on December 27, 2011 and now is designated as United States patent application number 13/337,610.

NOW THEREFORE, pursuant to the obligations imposed by or arising under one or more of our employment agreement(s), advisor agreement(s), state or national statutes, common law, and administrative regulation, and/or other good and valuable consideration, the receipt of which is hereby acknowledged, we hereby do make the following assignments --

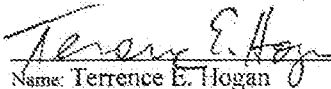
To **Bridgestone Corporation**, a corporation created and duly organized under the laws of Japan and having a place of business at 10-1, Kyobashi 1-Chome, Chuo-Ku, Tokyo, Japan 104, and its successors and assigns, we hereby


- assign, transfer, and set over the full and exclusive right to the above-described invention and to the above-described application for letters patent of the United States as well as any substitute, continuation, continuation-in-part, or divisional application filed thereon and to any letters patent of the United States that issues from such application(s) as well as any reissue application or request for reexamination filed on such letters patent;
- covenant and agree for ourselves and our legal representative(s) to
 - a) assist said assignee and/or its designee(s), to the extent requested, in the prosecution of said application for patent, in any interference declared on said application for patent or patent issuing therefrom, or in litigation which arises out of or is based on said application for patent or patent issuing therefrom, and
 - b) execute all papers related to said application for patent which said assignee or its designee(s) request to be signed, provided that expenses relating thereto shall be borne by said assignee; and
- authorize and request the Commissioner of Patents and Trademarks to issue any letters patent of the United States relating to the above-described invention in the name of said assignee.


To **Bridgestone Corporation**, a corporation created and duly organized under the laws of Japan and having a place of business at 10-1, Kyobashi 1-Chome, Chuo-Ku, Tokyo, Japan 104, and its successors and assigns, we hereby

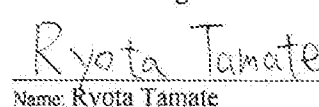
- assign, transfer, and set over the full and exclusive right to any application for letters patent filed in any regional or national patent office other than the United States Patent and Trademark Office;
- covenant and agree for ourselves and our legal representative(s) to
 - a) assist said assignee and/or its designee(s), to the extent requested, in the prosecution of any such applications for patent or in litigation which arises out of or is based on said application(s) for patent or patent(s) issuing therefrom, and
 - b) execute all papers related to said application(s) for patent which said assignee or its designee(s) request to be signed, provided that expenses relating thereto shall be borne by said assignee.

IN WITNESS WHEREOF, we have executed this document on the date next to our names.

 1-23-2012
Name: Terrence E. Hogan date

 01/23/2012
Name: Xiao-Dong Pan date

 1-26-2012
Name: Kenji Nakatani date

 03/02/2012
Name: Ryota Tamate date

PATENT