02-25-2003 T OF COMMERCE Director of the U.S. Patent RECORDATION and Trademark Office ind Trademark Office **Box Assignments** 11-21-02 Washington, D.C. 20231 102371979 114258 To the Director of the U.S. Patent and Trademark Office: Please record the attached original document or copy thereof. Name of conveying party: Name and address of receiving party: 1. A. Jun HIROSE NORITAKE CO., LIMITED 3-1-36, NORITAKESHINMACHI, NISHI-KU, NAGOYA-SHI, AICHI 451-8501 JAPAN Additional name(s) of conveying party(ies) attached? ☐ Yes 🖾 No Additional name(s) & address(es) attached? Nature of conveyance: ☐Yes ⊠ No ☐ Merger ☐ Change of Name Security Agreement Other \_\_\_\_ Execution Date: November 13, 2002 If this document is being filed together with a new application, the execution date of the application is: November 13, 2002 10, 296040 Patent Application No.(s) C. Patent No.(s) Additional numbers attached? ☐ Yes ☒ No Name and address of party to whom correspondence Total number of applications and patents involved: 1 concerning document should be mailed: Name: James A. Oliff Total fee (37 CFR 3.41).....\$\,\frac{40.00}{} B. Enclosed (Check No. 136491) Address: OLIFF & BERRIDGE, PLC Credit any overpayment or charge any underpayment to P.O. Box 19928 deposit account number 15-0461. Alexandria, VA 22320 Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original documents Date: November 21, 2002 James A. Oliff Registration No. 27,075 Thomas J. Pardini Registration No. 30,411 Total number of pages including cover sheet, attachments, and document: 2

> PATENT REEL: 013770 FRAME: 0892

## ASSIGNMENT FOR US PATENT APPLICATION

WHEREAS, the undersigned inventor, Jun HIROSE c/o NORITAKE CO., LIMITED 3-1-36, Noritakeshinmachi, Nishi-ku, Nagoya-shi, Aichi 451-8501 Japan (hereinafter referred to as "the Assignor"), has invented certain new and useful improvements in "GLASS COMPOSITIONS AND GLASS FORMING MATERIALS COMPRISING SAID COMPOSITIONS", for which an International patent application was filed on May 14, 2001 and was assigned serial number PCT/JP01/04000; and

WHEREAS, NORITAKE CO., LIMITED, a corporation duly organized under and pursuant to the laws of Japan, and having a principal place of business at 3-1-36, Noritakeshinmachi, Nishi-ku, Nagoya-shi, Aichi 451-8501 Japan (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title and interest of the Assignor in and to said improvements, the entire right, title and interest of the Assignor in and to any US patent application(s) based on said improvements, and in and to any Patent(s) of the United States, to be obtained therefor and thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the Assignor has sold, assigned, transferred, and set over, do hereby sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assign, the entire right, title, and interest of the Assignor in and to the above-mentioned improvements, the entire right, title and interest of the Assignor in and to any US patent applications and any and all Patents of the United States of America that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made;

AND for the same consideration, the Assignor hereby covenants to and agrees with the Assignee, its successors, legal representatives, and assign, that, at the time of execution and delivery of these presents, the Assignor is the sole and lawful owner of the entire right, title, and interest in and to the improvements set forth in said above-mentioned application, and that the same right, title, and interest are unencumbered, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignor hereby covenants to and agrees with the Assignee, its successors, legal representatives, and assign that the Assignor will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assign, shall advise that any proceeding in connection with said improvements or said applications for Patents, or any proceeding in connection with Patents for said improvements in the United States of America, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Patents, or any reissue or extension of any Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Patents for said improvements, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, their successors, legal representatives, and assigns;

AND the Assignor hereby requests the Commissioner of Patents and Trademarks to issue any and all said Patent(s) of the United States to the Assignee as the Assignee of said improvements, the Patent(s) to be issued for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date: Nov. 13 2002 Name of Assignor Jun Hirose

PATENT
RECORDED: 11/21/2002 REEL: 013770 FRAME: 0893