

# DuPont™ SentryGlas®

AND BUTACITE® INTERLAYERS IN LAMINATED GLASS

## Sound Transmission Loss (TL) Measurements: SentryGlas® Ionoplast and Butacite® PVB Laminated Glass Interlayers

DuPont™ Butacite® PVB and SentryGlas® ionoplast laminated glass interlayers are used in many monolithic and insulated glass (IG) architectural applications where sound attenuation is desirable. One test standard used for acoustical performance measurement is ASTM E90 Laboratory Measurement of Airborne Sound Transmission of Building Partitions. There are several ratings derived by testing according to this standard. Acoustical test results are presented below for monolithic and insulating glass (IG) units made with DuPont interlayers:

Nominal Thickness	Glass Make-Up	DuPont™ Interlayer	STC <sup>(a)</sup>	OITC <sup>(b)</sup>	FREQUENCY (HERTZ)																		
					80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
9/16" Lam	2 lites ¼"	.06" Butacite® PVB	37	34	25	25	30	29	30	30	31	33	35	36	37	37	35	36	39	43	46	49	52
9/16" Lam	2 lites ¼"	.06" SentryGlas®	35	32	25	24	30	30	29	30	31	34	33	35	34	33	31	34	37	41	44	46	48
9/16" Lam	2 lites ¼"	.035" SentryGlas®	35	33	25	25	31	29	30	29	32	33	34	36	35	33	31	35	38	42	45	46	49
1 3/16" IG	¼" - 1/2" air - 7/16" lam.	.06" Butacite® PVB	40	33	25	24	24	30	25	27	32	35	38	40	42	44	45	44	43	43	49	52	58
1 3/16" IG	¼" - 1/2" air - 7/16" lam.	.06" SentryGlas®	38	32	25	24	23	28	26	26	32	35	37	38	39	39	40	40	40	40	44	48	53
1 3/16" IG	¼" - 1/2" air - 3/8" lam.	.035" SentryGlas®	38	32	24	24	26	28	25	26	31	34	37	39	40	40	40	40	40	40	45	47	53
1 5/16" IG	¼" - 1/2" air - 9/16" lam.	.06" Butacite® PVB	41	33	25	25	26	30	27	28	33	35	38	39	41	43	44	44	44	44	49	52	57
1 5/16" IG	¼" - 1/2" air - 9/16" lam.	.06" SentryGlas®	39	33	25	25	25	29	27	28	33	34	35	37	39	41	41	42	43	42	46	48	54
1 5/16" IG	¼" - 1/2" air - 1/2" lam.	.035" SentryGlas®	39	33	25	27	24	30	27	28	33	35	36	38	39	41	41	43	43	43	48	50	56

ATI Test Report 86743.01 completed 2008 at Architectural Testing, Inc.(ATI)

**(a) Sound Transmission Class (STC)** assesses privacy for interior walls. It is achieved by applying the Transmission Loss (TL) values from 125 Hz to 4000 Hz to the STC reference contour found in ASTM E413. STC is the shifted reference contour at 500 Hz.

**(b) Outside Inside Transmission Class (OITC)** assesses exterior partitions exposed to outside noise. It covers the 80 Hz to 4000 Hz range. The source noise spectrum is weighted more to low frequency sounds, such as aircraft, train, and truck traffic. The OITC rating is calculated in accordance with ASTM E1332.

STC and OITC values can be affected by glass thickness, interlayer thickness, air space and framing. An in-depth acoustical analysis may be required to understand project-specific factors.



The miracles of science™



### Worldwide DuPont Sales and Support

DuPont Glass Laminating Solutions supplies and supports customers from research, manufacturing and sales locations worldwide.

*Laminated safety glass made with DuPont interlayers can help reduce sound transmission through glass. The effect is most pronounced at frequencies associated with objectionable noise such as street traffic.*

### REGIONAL CONTACT CENTERS FOR DUPONT GLASS LAMINATING SOLUTIONS

**DuPont Glass Laminating Solutions  
Wilmington, Delaware U.S.A.  
Telephone +1 302 992 4557  
Toll-free (USA) 800 438 7225  
Fax +1 302 892 7390**

**DuPont do Brasil, S.A.  
Barueri, Sao Paulo Brasil  
Telephone +55 11 4166 8542  
Fax +55 11 4166 8720**

**DuPont China Holding Co., Ltd.  
Pudong New District, Shanghai  
Telephone +86 21 3862 2888  
Fax +86 21 3862 2445**

**DuPont de Nemours Int'l. S.A.  
Geneva, Switzerland  
Telephone +41 22 717 51 11  
fax +41 22 717 55 00**

[www.safetyglass.dupont.com](http://www.safetyglass.dupont.com)

*The technical data contained herein are guides to the use of DuPont materials. The advice contained herein is based upon tests and information believed to be reliable, but users should not rely upon it absolutely for specific applications because performance properties will vary with processing conditions. It is given and accepted at user's risk and confirmation of its validity and suitability in particular cases should be obtained independently. The DuPont Company makes no guarantees of results and assumes no obligations or liability in connection with its advice. This publication is not to be taken as a license to operate under, or recommendation to infringe, any patents.*

*CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see DuPont Medical Caution Statement, H-50102.*

*The DuPont Oval, DuPont™, The miracles of science™, Butacite® and SentryGlas® are trademarks or registered trademarks of DuPont or its affiliates.*

*Copyright © 2009 E.I. du Pont de Nemours and Company. All rights reserved. K-22075 (05/09)*



*The miracles of science™*