



Saflex® SilentGlass Technology™

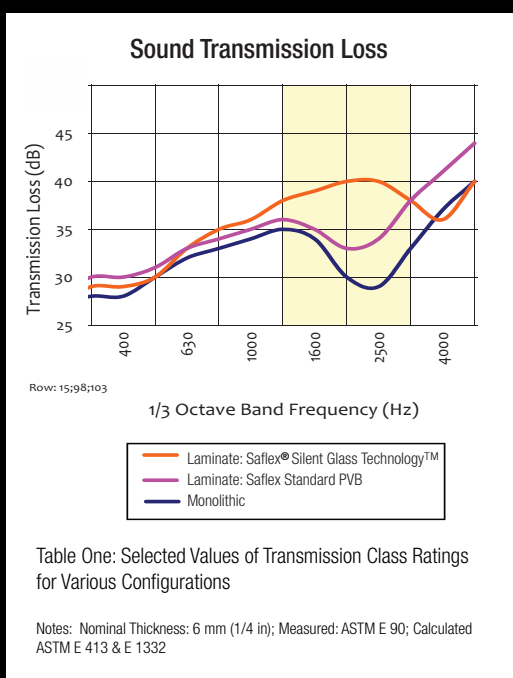
Extending the Frontiers of Performance Glazing



New Saflex Acoustic Interlayer Cuts Perceived Irritating Noise by up to 50%

Sound transmission into building spaces is generally through the path of least resistance—the windows. When standard glazing configurations are not sufficient to limit the transmission of sound into building spaces, window systems with superior sound dampening performance must be considered. That's where Saflex can help.

Saflex Acoustic Performance



Saflex introduces an advanced acoustical interlayer featuring SilentGlass Technology™. It's the perfect solution for architects and building owners demanding high performance sound attenuation.

SilentGlass Technology is an intelligent three layer system designed to decouple and disseminate sound waves for superior sound damping performance. The heart of this proprietary system (patent pending) is an advanced acoustical interlayer that transforms sound energy into heat energy which then easily, and quietly, dissipates. Plus, SilentGlass Technology targets sounds in the 1000 – 3000 Hz range which is the “noise transparency” range that lets most of the noise through. This includes irritating sounds like car horns, barking dogs, amplified music, and aircraft.

Window systems utilizing Saflex's SilentGlass Technology can result in a reduction of up to 10 decibels in the “transparent” frequency which equates up to a 50% reduction in perceived sound!

Where Silence is Golden

Isolation of interior building spaces from exterior sound is important if building spaces are to properly serve their intended purposes. For example, a hotel near an airport that has windows that do not sufficiently limit the amount of aircraft sound transmitted into guest rooms may fail to provide what hotel guests are seeking in the hotel, i.e., a good night's sleep. Although hotels are obvious targets for concerns about sound in the environment, almost all types of buildings have at least some areas within that could be adversely affected by high levels of environmental sound transmitted from outside the building.

Laminated Glass with Saflex® SilentGlass Technology™ should be specified in any project where a higher level of sound reduction is a critical concern. This includes housing and offices near transportation corridors, health care facilities in any location and educational facilities. As urban density continues to increase so will the need for new products and technologies to mitigate irritating sounds.

The Brand to Trust

Around the world, Saflex is the most trusted name in laminated glass interlayer technology – delivering consistent performance, durability, reliable and knowledgeable service. Saflex SilentGlass interlayer is currently available for use in laminated lites and insulated glazing systems for windows, facades and curtain walls, in overhead and sloped glazing and in office partition applications.

Acoustic Performance

Common laminated glass configurations with Saflex Q series acoustic interlayer based on tests conducted at laboratories are shown below.

Specimen Configuration (inches)	Overall Thickness (inches)	STC ¹	OITC
Monolithic Units			
1/4	1/4	32	29
Laminated Single Units			
1/8- Saflex® 0.030-1/8	1/4	34	30
1/8- Saflex® SilentGlass Technology 0.030-1/8	1/4	35	30
1/4- Saflex 0.030-1/4	1/2	37	33
1/4- Saflex SilentGlass Technology 0.030-1/4	1/2	39	34
Laminated Insulating Glass Units			
1/4 [1/2 Air Space] 1/8- Saflex 0.030-1/8	1	41	34
1/4 [1/2 Air Space] 1/8- Saflex SilentGlass Technology 0.030-1/8	1	42	33
1/4 [1/2 Air Space] 1/4- Saflex 0.030-1/4	1 1/4	38	30
1/4 [1/2 Air Space] 1/4- SilentGlass Technology 0.030-1/4	1 1/4	43	34
Double Laminated Insulating Glass Units			
1/8- Saflex 0.030-1/8 [1/2 Air Space] 1/8- Saflex 0.030-1/8	1	40	33
1/8- Saflex SGT 0.030-1/8 [1/2 Air Space] 1/8- Saflex SGT 0.030-1/8	1	42	33

Notes: 1 = Glass only values. Frequency and single numbers transmission loss numbers will change with variables such as edge anchoring, size, temperature, frame type and air infiltration of window systems. STC and OITC values are provided from glass samples held in place with a pliable mastic; nominal glass size 3 ft x 6 ft; test temperature nominal 70 degrees F

For additional information about Saflex visit our web site: www.saflex.com or call +1 (314) 674-1223.

Technical Data					
Technical Data	Property	Test Method	Units	Test Conditions	Saflex SilentGlass™ Technology
Physical	Thickness	Micrometer	mm	--	0.76mm
	Specific Gravity	ASTM D792	--	23° C	1.060 mm
	Specific Heat	ASTM E1269	Joules/Kg - °K BTU/lb - °F	50° C (122°F)	2050 0.41
Mechanical	Tensile Strength	JIS K6771	MPa Kg/cm² psi	23° C/ 50% RH	21 210 3040
	Elongation at Failure	JIS K6771	%	23° C/ 50% RH	250
Optical	Refractive Index	ASTM D542	--	23° C	1.476
Impact	5-lb (2,227g) Ball Impact	ANSI Z26.1; ECE R43	ANSI Z26.1; ECE R43		Comply
	100lb (45,359g) Shot Bag Impact	ANSI Z97.1; CPSC 16 CFR 1201	Class B; Cat 1 150ftlb (667N)		Comply
	100lb (45,359g) Shot Bag Impact	ANSI Z97.1; CPSC 16 CFR 1201	Class A; Cat I 400ftlb (1779)		Comply

Solar Data	Test Method	Clear Glass	Visible Light (D65)	Solar
Transmission	ISO 9050/EN410/NFRC 300	2 x 3.0 mm	88%	71%
Reflection	ISO 9050/EN410/NFRC 300	2 x 3.0 mm	8%	7%
Absorption	ISO 9050/EN410	2 x 3.0 mm	4%	22%
Solar Heat Gain Coefficient (SHGC)	NFRC 300	2 x 3.0 mm	0.80	
Light to Solar Gain (LSG)	--	2 x 3.0 mm	1.10	
UV Blocking	Wavelength Damage Weighted	2 x 3.0 mm	300-380 300-400	> 99% > 96%

NOTICE: Although the information and recommendations set forth herein (hereafter "Information") are presented in good faith and believed to be correct as of the date hereof, Solutia Inc. makes no representations or warranties as to the completeness or accuracy thereof. Information is supplied upon the condition that the person receiving same will make its own determination as to its suitability for their purpose prior to use. In no event will Solutia Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information or the product to which Information refers. Nothing contained herein is to be construed as a recommendation to use any product, process, equipment or formulation in conflict with any patent. NO REPRESENTATION OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

Solutia®, Solutions For A Better Life®, Saflex®, SilentGlass Technology™, and the Solutia and Infinity Logo® and Saflex and Design® logos are registered trademarks of Solutia Inc.

©Solutia Inc., 2008 - Pub #2450006

