

MOHAWK
FLUSH DOORS

A  *Masonite* COMPANY



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Technical

Bulletin

Sound Retardant Doors by Mohawk

Through extensive work with Intertek Testing Services (ITS), Architectural Testing, and Riverbank Acoustical Laboratories, Mohawk is pleased to offer the industry a broad offering of STC class products. The attached two pages will provide an overview of STC ratings available in both ASTM E90 “Fixed Values”, as well as, ASTM E1408/ASTM E 1425 “Operable Values”. Please note that many of the door products shown are fire rated, and most importantly, **many ratings are achieved without the use of thresholds!** Please note that where thresholds are not required, door bottoms must have full contact with a solid, smooth surface.

In an effort to offer our customers the greatest flexibility, the seals and thresholds are NOT supplied with the door. We recognize the needs of the opening, and must also insure that the Design Professional, Acoustical Engineer, and an Architectural Hardware Consultant have the ability to select the most appropriate seal system to meet the demands of the opening; these include: ADA compliance, Smoke and Draft Control, and general seal integrity. Tested and approved seal systems are shown within this document. Because each opening has unique requirements beyond the sound transfer values, Mohawk recommends that seal selections be made only after consulting with the seal supplier or project acoustical engineer.

STC values were determined by three accredited testing facilities using standard protocol for normal jobsite applications. Actual field performance may vary based on the installation of the frame, hardware, seals, and general floor, wall and ceiling construction.

For more information on the full line of Mohawk products, please consult your nearest Mohawk representative or visit us online at www.mohawkdoors.com.

ASTM E90 – “Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions”

ASTM E1408 – “Standard Test Method for Laboratory Measurement of the Sound Transmission Loss of Door Panels and Door Systems”.

ASTM E1425 – “Standard Practice for Determining the Acoustical Performance of Windows, Doors, Skylight, and Glazed Wall Systems”



The Sound Retardant (STC) Doors of Mohawk

STC Operable Values with Seal Combinations Used in Third Party Lab Testing

Note: Seals, Door Bottoms and Thresholds are not supplied with the door

Single Swing - Sizes to 4/0 X 8/0 (For larger sizes, please consult our factory)

Operable STC ASTM E90 plus ASTM E1408 or E1425	Fire Rating Maximum	Threshold Required	Door Bottom - Hard Surface Floor or Saddle Required	Perimeter Sealing Head & Jamb	Lites Allowed (See Attached Glass Types)	Blocking For Surface Hardware	Fixed Panel STC (ASTM E90 only)
24	20 min NP/PP	None	None with 1/4" undercut	DHSI #105 cush-n-seal	Yes	Not Tested	34
26	20 min NP/PP	None	DHSI SSDB3-3 with Corner Plugs & 1/4" undercut	Single NGP 50/50			
29	20 min NP/PP	None	DHSI - A-MDB-3-AMU with 1/4" undercut	DHSI #105 cush-n-seal			
30	20 min NP/PP	None	DHSI - Cap Sweep Z & 1/4" undercut				
31	20 min NP/PP	None	DHSI - A-MDB-3- or Secure-A-Seal Door Bottom & 1/4" undercut				
32	20 min NP/PP	None	DHSI - A-MDB-3-AMU with Corner Plugs & 1/4" undercut				
32	90 min NP/PP	None	DHSI - Cap Sweep	DHSI #105 cush-n-seal	Yes	(Optional)	35
29	90-min NP/PP	None	DHSI AMBD mortised door sweep	DHSI #105 cush-n-seal	Yes	5" Stiles and Rails Standard	35
31	90-min NP/PP	None	DHSI AMBD Modified mortised door sweep				
33	90-min NP/PP	None	DHSI cap sweep				
34	90-min NP/PP	None	Zero 367 + 119 WB				
35	90-min NP/PP	None	Zero 369	Zero 8145 + 119 WB	Yes	Not Tested	39
37	45-min NP/PP	None	Zero 369	Zero 475			
38	45-min NP/PP	NGP 950S	NGP 321V	NGP 2 rows NGP 5050			
39	45-min NP/PP	None	Zero 369	Zero 475 +119 WB	Yes & Tested with NL 100" 3/4" Firelite Plus IGU	Not Required	40
38	45-min NP/PP	NGP 950S	NGP 425 N	Double row NGP 5050 & NGP 1071 SA			
40	45-min NP/PP	None	Zero 369	Zero 475 +119 WB	No	5" Stiles and Rails Standard	Not Tested Fixed
45	Non-Rated	Pemko 2005AS or NGP 896S Gasketed Saddle	All Metal Stamping 300 Series or NGP 225N Series	Double Pemko S88 1000 per side & top			

ANEMOSTAT -- Sound Tested MVP with Variety of Glass Types

TESTED SIZE:

Max Visible Glass Size = 22" x 34" - 748 sq in

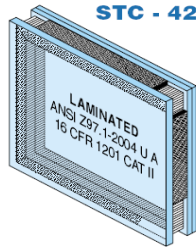
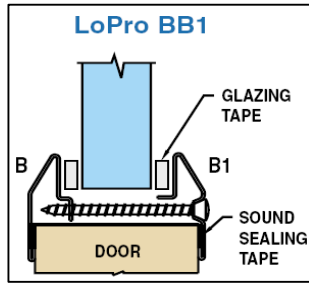
Max Door Cutout Size 24" X 36"

Tested Door Assembly STC = Lowest STC rating of the Lite and Door

i.e. Door at STC 35 & Lite at STC 40 = Assembly at STC 35

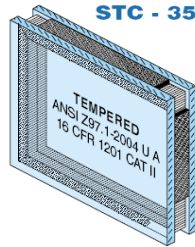
Testing conducted at Western Electro - Acoustic Laboratory, Santa Clarita, CA.

Safety Rated Only



1" Laminated IGU

- Category II Rated
- 5/16" Laminated and 3/16" Tempered



1" Tempered IGU

- Category II Rated
- 1/4" Tempered and 1/4" Tempered

Sound Rating Summary - Safety Rated Only

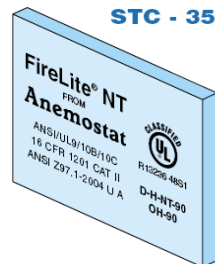
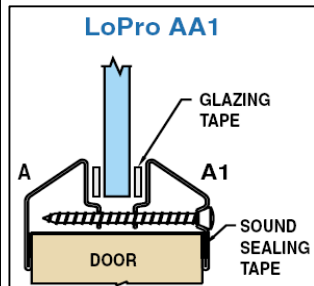
STC 35 - 1" Tempered IGU(Safety Rated Only)

STC 42 - 1" Laminated IGU (Safety Rated Only)

TESTED IN ACCORDANCE WITH: ASTM E90-09 and ASTM E2235-04

STC measurements determined in accordance with ASTM E413-04.

Fire & Safety (Impact) Rated



3/16" FireLite NT

- Fire Rated up to 180 min.
- Category II Safety Rated



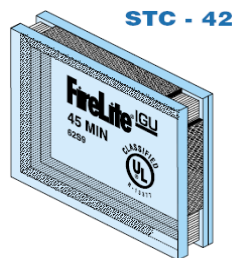
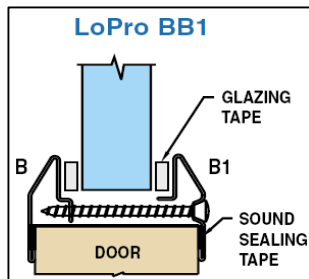
1/4" SAFE-Wire

- Fire Rated up to 90 min.
- Category II Safety Rated



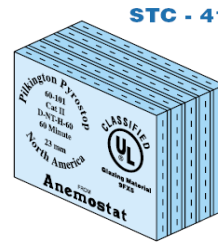
5/16" FireLite Plus

- Fire Rated up to 180 min.
- Category II Safety Rated



1" FireLite Plus IGU

- Fire Rated up to 180 min.
- Category II Safety Rated



7/8" Pyrostop 60-101 23mm

- Fire Rated up to 60 min.
- Category II Safety Rated

Sound Rating Summary - Fire & Safety

STC 38 - 1/4" SAFE-Wire

STC 35 - 3/16" FireLite NT

STC 38 - 5/16" FireLite Plus

STC 42 - 1" FireLite Plus IGU

STC 41 - 7/8" Pyrostop 60-101 23mm

TESTED IN ACCORDANCE WITH: ASTM E90-09 and ASTM E2235-04

STC measurements determined in accordance with ASTM E413-04.