



SOUND TRANSMISSION CLASS

DOORS

SOUND TRANSMISSION CLASS (STC) DOORS

ACOUSTICAL DOORS

VT Industries offers several acoustical door types to meet most building Sound Transmission Class (STC) performance requirements. VT acoustical doors combined with multiple gasket seal systems and frames have been laboratory tested to ensure design, building code, and LEED conformance. Our doors are specially constructed to meet STC requirements for a multitude of projects and applications, including schools, universities, government buildings, private offices, auditoriums, theatres, and libraries.

PERFORMANCE TESTING

VT acoustical doors have been laboratory tested per the most recent version of ASTM E-90, Standard Method for Laboratory Measurement of Airborne Sound Transmission. Our doors are only tested in an operable state to accurately simulate on-site performance. Testing of the entire opening system is conducted, which includes the door in combination with properly installed gasket seal systems (frame gaskets and door sweeps), accupads, and frames.

LEED FOR SCHOOLS –

INDOOR AIR QUALITY CREDIT 9: ENHANCED ACOUSTICAL PERFORMANCE

LEED 2009 For Schools – Indoor Air Quality credit 9, requires classrooms and other core learning spaces meet STC requirements for the ANSI Standard S12.60-2002. Several STC ratings for interior doors are referenced within the standard, depending on the location of the learning space. STC 30 is the minimum requirement for all classroom doors, and music room doors require a minimum STC rating of 40.

Several door types meet this STC credit requirement, for additional LEED credit assistance reference our *LEED Opportunities Brochure*.

GASKET SEAL SYSTEM CHART

GASKET SEAL SYSTEM CODE	DOOR BOTTOM	FRAME GASKET	ACCUPAD QTY.
A	DHSI Surface Sweep #CS	105 Cush-N-Seal on Door Stop	2
B	DHSI Surface Sweep #CS	Double row S88	2
C	Pemko 234 APV	105 Cush-N-Seal on Door Stop	2
D	Pemko 234 APV	Double row S88	2
E	Pemko 234 APV	Pemko S88	2
F	Pemko 2343 AV	Double row S88	2
G	Pemko 2343 AV	Pemko S88	2
H	Pemko 434 (mortised)	Double row S88	2
I	Pemko 434 (mortised)	Pemko S773 and Pemko S44	2
J	Pemko 434 (mortised)	Triple Bubble	0
K	Zero 369	Zero 8145 and Zero 119WB	0

STC DOOR CHART

VT Door Types	STC	Fire Rating	FSC	NAUF**	Gasket Seal System	Maximum Door Size**	Lite Size	Glass Type / Stop
404 / 5502	30	NR	Y	Y	A	4' x 10'	Not Allowed	N/A
404 / 4P04 / 5502 / 5P02	30	20-min	Y	Y	A	Follow fire rating guidelines	Not Allowed	N/A
404 / 5502	30	NR	Y	Y	B	4' x 10'	Not Allowed	N/A
404 / 4P04 / 5502 / 5P02	30	20-min	Y	Y	B	Follow fire rating guidelines	Not Allowed	N/A
404 / 5502	30	NR	Y	Y	E	4' x 10'	Not Allowed	N/A
404 / 4P04 / 5502 / 5P02	30	20-min	Y	Y	E	Follow fire rating guidelines	Not Allowed	N/A
909 / 5509	30	NR	Y	Y	D	4' x 10'	Not Allowed	N/A
909 / 9P09 / 5509 / 5P09	30	20-min	Y	Y	D	Follow fire rating guidelines	Not Allowed	N/A
5P09 / 9P09	30	45-min	Y	Y	D	Follow fire rating guidelines	Not Allowed	N/A
404 / 5502	31	NR	Y	Y	F	4' x 10'	Not Allowed	N/A
404 / 4P04 / 5502 / 5P02	31	20-min	Y	Y	F	Follow fire rating guidelines	Not Allowed	N/A
404 / 5502	32	NR	Y	Y	A	4' x 10'	Must have lite [^]	1/4" lam. glass & wood stops
404 / 4P04 / 5502 / 5P02	32	20-min	Y	Y	A	Follow fire rating guidelines	Must have lite [^]	1/4" fire approved glass & wood stops with clips
404 / 5502	32	NR	Y	Y	E	4' x 10'	Must have lite [^]	1/4" lam. glass & wood stops
404 / 4P04 / 5502 / 5P02	32	20-min	Y	Y	E	Follow fire rating guidelines	Must have lite [^]	1/4" fire approved glass & wood stops with clips
404 / 5502	32	NR	Y	Y	C	4' x 10'	Must have lite [^]	1/4" lam. glass & wood stops
404 / 4P04 / 5502 / 5P02	32	20-min	Y	Y	C	Follow fire rating guidelines	Must have lite [^]	1/4" fire approved glass & wood stops with clips
707 / 5507	32	NR	Y	Y	E	4' x 10'	Not Allowed	N/A
707 / 7P07 / 5507 / 5P07	32	20-min	Y	Y	E	Follow fire rating guidelines	Not Allowed	N/A
707 / 5507	32	NR	Y	Y	G	4' x 10'	Not Allowed	N/A
707 / 7P07 / 5507 / 5P07	32	20-min	Y	Y	G	Follow fire rating guidelines	Not Allowed	N/A
808 / 5508	33	NR	Y	Y	A	4' x 10'	Max. 24" x 68"	1/4" tempered glass woodstops
808 / 5508	33	NR	Y	Y	E	4' x 10'	Max. 24" x 68"	1/4" tempered glass woodstops
808 / 8P08 / 5508 / 5P08	33	20-min	Y	Y	E	Follow fire rating guidelines	Max. 24" x 68"	1/4" fire approved glass & wood stops with clips
8P08 / 1111 / 1P11 / 1345 / 1P45 5P08 / 5545 / 5P45 / 5511 / 5P11	33	45-min	Y	Y	E	Follow fire rating guidelines	Not Allowed	N/A
1P45 / 5P45 / 1111 / 1P11 / 5511 / 5P11	33	60-min	Y	Y	E	Follow fire rating guidelines	Not Allowed	N/A
1111 / 1P11 / 5511 / 5P11	33	90-min	N	Y	E	Follow fire rating guidelines	Not Allowed	N/A
1240 / 5540	35	NR	Y	Y	D	4' X 8'	Not Allowed	N/A
1P11 / 5P11	35	45- / 60- / 90-min	N	Y	K	Follow fire rating guidelines	Not Allowed	N/A
1P40 / 5P40	35	20-min	N	N	D	4' X 8'	Not Allowed	N/A
1240	39	NR / 20-min neutral	N	N	J	4' x 9'	Max. 6" x 36" / 216 sq." [†]	5/8" laminated
5540	39	NR / 20-min neutral	N	N	J	4' x 9'	Max. 6" x 36" / 216 sq." [†]	5/8" laminated
1P40 / 5P40	39	20-min	N	N	B	4' x 9'	Not Allowed	N/A
1250 / 5550	42	NR / 20-min neutral	N	Y	D	4' x 8'	Not Allowed	N/A
1250 / 5550	42	NR / 20-min neutral	N	Y	F	4' x 8'	Not Allowed	N/A
1250 / 5550	42	NR / 20-min neutral	N	Y	H	4' x 8'	Not Allowed	N/A
1250 / 5550	42	NR / 20-min neutral	N	Y	B	4' x 8'	Not Allowed	N/A
1P50 / 5P50	42	20-min	N	Y	D	4' x 8'	Not Allowed	N/A
1P50 / 5P50	42	20-min	N	Y	F	4' x 8'	Not Allowed	N/A
1P50 / 5P50	42	20-min	N	Y	H	4' x 8'	Not Allowed	N/A
1P50 / 5P50	42	20-min	N	Y	J	4' x 8'	Not Allowed	N/A
1050 / 5050	45	NR	N	Y	J	4' X 9'	Max. 6" x 36" / 216 sq." [†]	5/8" laminated
1250	45	NR / 20-min neutral	N	Y	I	4' x 8'	Max. 6" x 36" / 216 sq." [†]	5/8" laminated
1250	45	NR	N	Y	I	4' x 8'	Max. 6" x 36" / 216 sq." [†]	5/8" laminated
5550	45	NR / 20-min neutral	N	Y	J	4' x 8'	Max. 6" x 36" / 216 sq." ^{††}	5/8" laminated
5550	45	NR / 20-min neutral	N	Y	I	4' x 8'	Max. 6" x 36" / 216 sq." ^{††}	5/8" laminated
1P50 / 5P50	45	20-min	N	Y	J	4' x 8'	Not Allowed	N/A
1P50 / 5P50	45	20-min	N	Y	I	4' x 8'	Not Allowed	N/A

*FSC or no added urea-formaldehyde must be specified - Reference LEED Opportunity Brochure for more information.

**Single doors only. Reference Neutral & Positive Pressure Fire Capabilities charts for guidelines.

[^] Min. 100 sq. in. / Max. 216 sq. in. Fire rated doors require glass that meets fire rating; must be caulked.

[#] Door with lite - STC 44.

[†] Non rated door only. Requires STC S105 metal lite kit.

General notes pertaining to all doors listed:

- 1-3/4" door thickness.
- Filled Steel Frame Only.
- Transoms require fixed bar between door and transom.
- Hinge, locks, rim exits, surface closers, and viewers available. Consult factory if additional hardware required.
- Variations could affect the STC rating of the opening. Consult factory for details.
- Reference STC Capability Chart for full requirements.

