

# SOUNDPROOFING PERFORMANCE

Below are the construction details of an acoustic door with composite core for STC applications. These specifications must be followed as closely as possible to ensure maximum acoustic performance.

## STC operable SOUND RATED SPECIALIZED CONSTRUCTION

	44 dB	43 dB	39 dB	46 dB	45 dB	44 dB	43 dB	42 dB	41 dB	40 dB	39 dB	35 dB
<b>CONSTRUCTION</b>	<b>SR44 (2) PAIRED</b>	<b>SR43 (2) PAIRED</b>	<b>SR39 (2) PAIRED</b>	<b>SR46</b>	<b>SR45</b>	<b>SR44</b>	<b>SR43</b>	<b>SR42</b>	<b>SR41</b>	<b>SR40</b>	<b>SR39</b>	<b>SR35</b>
Available size	6' x 7' (max. 3' x 7'/door)			4' x 8'	4' x 8'	4' x 8'	4' x 8'	4' x 8'	4' x 8'	4' x 8'	4' x 8'	4' x 10'
Weight factor (lb/sq. ft.)	10.6	8.8	7.4	10.6	10.6	10.6	8.8	8.8	8.8	7.4	7.4	6.5
Weight based on 3' x 7' (lb)	218	174	143	218	218	218	174	174	174	155.4	155.4	137
Fire rated slab door	N/A	20 min	20 min	20 min	20 min	20 min	20 min	20 min	20 min	20 min	20 min	20 min
Approved fire rated glazed opening	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available
<b>Fire rated glazing kit</b>												
Lite Kit	N/A	Pemko LTB3	Pemko LTB3	Pemko LTB3	Pemko LTB3	Pemko LTB3	Pemko LTB3	Pemko LTB3	Pemko LTB3	Pemko LTB3	Pemko LTB3	Pemko LTB1
Glazing	N/A	7/8" Pyrostop	7/8" Pyrostop	7/8" Pyrostop	7/8" Pyrostop	7/8" Pyrostop	7/8" Pyrostop	7/8" Pyrostop	7/8" Pyrostop	7/8" Pyrostop	7/8" Pyrostop	3/16" ceramic Firelite NT
Maximum vision (sq. in.)	N/A	216	216	100	216	484	216	484	864	864	864	484
<b>Non fire rated glazing kit</b>												
Lite Kit	Pemko LTB2	Pemko LTB2	Pemko LTB2	Pemko LTB2	Pemko LTB2	Pemko LTB2	Pemko LTB2	Pemko LTB2	Pemko LTB2	Pemko LTB2	Pemko LTB2	Pemko LTB1
Glazing	11/16" laminated	11/16" laminated	5/8" laminated	5/8" laminated	5/8" laminated	5/8" laminated	1/2" laminated	1/2" laminated	5/8" laminated	1/2" laminated	1/2" laminated	5/16" laminated
Maximum vision (sq. in.)	216	216	216	100	216	484	100	484	864	864	864	484

## SOUND RATED FIREPROOF CONSTRUCTION

	45 dB	43 dB	42 dB	41 dB	35 dB	32 dB	29 dB
<b>CONSTRUCTION</b>	<b>SR4545</b>	<b>SR4345</b>	<b>SR4245</b>	<b>SR4145</b>	<b>5060-90 PP</b>	<b>5045-90 NP</b>	<b>AF45</b>
Available size	3' x 7'	3' x 7'	3' x 7'	3' x 7'	4' x 9'	4' x 10'	3' x 7'
Weight factor (lb/sq. ft.)	10.4	10.1	10.1	10.1	6.3	5.5	4.9
Weight based on 3' x 7' (lb)	218.4	212.1	212.1	212.1	143	115	104
Fire rated slab door	45 min	45 min	45 min	45 min	60-90 min	45-90 min	45 min
Approved fire rated glazed opening	Available	Available	Available	Available	Available	Available	Available
<b>Fire rated glazing kit</b>							
Lite Kit	Pemko LTB3	Pemko LTB3	Pemko LTB3	Pemko LTB3	Anemostat Lopro		
Glazing	7/8" Pyrostop	7/8" Pyrostop	7/8" Pyrostop	7/8" Pyrostop	1/4" wire or Firelite NT 3/16"		
Maximum vision (sq. in.)	216	216	484	864	100	100	100
<b>Non fire rated glazing kit</b>							
Lite Kit	N/A	Pemko LTB1	Pemko LTB1	Pemko LTB1	Pemko LTB1	Pemko LTB1	Pemko LTB1
Glazing	N/A	1/4" laminated	1/4" laminated	1/4" laminated	1/4" laminated	1/4" laminated	1/4" laminated
Maximum vision (sq. in.)	N/A	100	100	100	100	100	100

## SOUND RATED STANDARD CONSTRUCTION

	38 dB	31 dB	31 dB	30 dB	30 dB
<b>CONSTRUCTION</b>	<b>8526</b>	<b>7600</b>	<b>6000</b>	<b>8500</b>	<b>8600</b>
Available size	3' x 7'	3' x 7'	3' x 7'	3' x 7'	3' x 7'
Weight factor (lb/sq. ft.)	12.5	4.9	5.4	4.5	4.8
Weight based on 3' x 7' (lb)	274	114	120	108	110
Fire rated slab door	N/A	20 min	20 min	20 min	20 min
Approved fire rated glazed opening	N/A	N/A	N/A	N/A	N/A
<b>Fire rated glazing kit</b>					
Lite Kit	N/A	N/A	N/A	N/A	N/A
Glazing	N/A	N/A	N/A	N/A	N/A
Maximum vision (sq. in.)	N/A	N/A	N/A	N/A	N/A
<b>Non fire rated glazing kit</b>					
Lite Kit	N/A	Pemko LTB1	Pemko LTB1	Pemko LTB1	Pemko LTB1
Glazing	N/A	1/4" laminated	1/4" laminated	1/4" laminated	1/4" laminated
Maximum vision (sq. in.)	N/A	100	100	100	100

## CONFIGURATION OF SOUNDPROOFING HARDWARE

Kit #	13	13	13	10	10	10	10	10	10	10	10	12	10	10	10	10	9	6	3	2	2	2	2	2	
<b>Head &amp; jambs</b>																									
Zero 119w																									
Pemko S-88																									
Pemko S-88 (2 rows)																									
Pemko S-44	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DHSI 105																									
Zero 8145 SBK																									
<b>Stop</b>																									
Pemko S-88																									
Pemko S-773	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Bottom rail</b>																									
Pemko S-773	●	●	●																						
<b>Drop-down threshold</b>																									
DHSI CS DP .375 (2)																									
Pemko 411 AE/ACP112	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Pemko 434 ARL																									
Unique 50 MHD																									
Zero 360																									
Zero 369A																									
<b>Other</b>																									
Pemko AST 303AS (2)	●	●	●																						
Pemko S-773 (inactive)	●	●	●																						
ACP112 (cushion 1-1/4" x 2")	●	●	●																						

### DOOR ASSEMBLY

#### Section 1.1 : Door construction

Core components pre-measured to standard sizes that vary pending door size and intended use.

Standard sizes are suitable for the following door sizes: 3' x 7', 3'6" x 7', 3' x 8', 4' x 8', 4' x 10' and 3' x 7' (Paired)

Custom sizes available on request.

The faces are glued to the core in accordance with industry standards for 1 3/4" 5-ply flush doors.

Specification are based on a 3'0" x 7'0" and 4'0" x 8'0" test door (depending on construction).

#### Section 1.2 : Hardware

All STC tests are carried out with specific hardware (No.161 cylindrical lock and 4 1/2" full mortise hinges).

Extra heavy duty hinges are recommended.

Vision Lite have been tested on specific door construction and will affect STC performance if difference to test area. Contact us for any construction modification, including vision kits.

Any hardware not installed using though bolts must be properly tightened.

### ACOUSTIC

#### Section 2.1 : Sealing

All levels of STC performance require specific gasket system and procedures.

We can supply gasket products. Or, you can purchase products directly from a tested and approved manufacturer.

Please refer to installation specifications for each gasket system.

Acoustic hardware must be adjusted properly to door opening to meet manufacturing specification and 3<sup>rd</sup> party testing.