

## ZERO 'SOUNDTRAP' SYSTEMS

Our featured 'SOUNDTRAP' gasketing systems can satisfy a wide range of common commercial and industrial sound-control applications for single swinging doors - as well as providing privacy behind pairs of doors for typical office applications. These are proven acoustic solutions.

## **SOUND TRANSMISSION CLASS (STC) TABLE**

STC	PERFORMANCE	DESCRIPTION	
50-60	Excellent	Loud sounds heard faintly or not at all.	
40-50	Very Good	Loud speech heard faintly but not understood.	
35-40	Good	Loud speech heard but hardly intelligible.	
30-35	Fair	Loud speech understood fairly well.	
25-30	Poor	Normal speech understood easily and distinctly.	
20-25	Very Poor	Low speech audible.	

Sound Transmission Class (STC) ratings indicate the ability to prevent the transfer of sound from one area to another. For example, 305mm of reinforced concrete would be rated at 56 STC, while 6mm plate glass is 26 STC.

We are often asked what is the difference between STC ratings as used in the USA and SRI-Rw (Sound Reduction Index - Weighted Reduction) ratings as used in the UK. Sound Reduction Index - Rw - (SRI-Rw) measures the value of the barrier by recording the sound pressure levels (dB decibel rating) in both source and receiving rooms at a specific frequency. This is measured across a weighted average of 16 frequencies from 100 - 3150 Hertz. The SRI-Rw level is recorded as the difference between the two values.

Sound Transmission Classification (STC) follows the same logic but is measured across a weighted average of 16 frequencies from 125-4000 Hertz. Again, the value is the difference in average values between source and receiving rooms. The higher the value, the better is the attenuating effect of the barrier.

In summary, STC and Rw measurements are very similar - the Rw range is 100 - 3150Hz whereas the STC frequency range is 125 - 4000Hz. In reality, the numerical value of the two ratings are very often the same.

## **SOUNDTRAP SYSTEMS HIGH LEVEL RATING**

GASKETING SYSTEM	HEAD & JAMB	THRESHOLD	DOOR BOTTOM	STC RATING
STC1	3708 & 119WB	564B	367	53 STC
STC2	770 & 119WB	564B	367	52 STC
STC3	770 & 119WB	656B	367	51 STC
STC4	170 & 119WB	564B	367	51 STC
STC5	485 & 119WB	565B	361	49 STC

All systems tested with STC 55 Doors (rated as panels).

For technical information about acoustics, ask for a copy of 'Sound Solutions from ZERO'. Our 20-page brochure discusses the basic principles of acoustics to help define and quantify noise problems.

It explains how sound transmission through doors is measured and compared using STC - Sound Transmission Class ratings. The brochure also explains the vital role of gasketing in those assemblies and walks you through the necessary steps for practical applications.

## **SOUNDTRAP 52 STC SEALING SYSTEM**

Our SOUNDTRAP 52 STC rated systems are designed for use with sound rated single metal doors with cased-opening frame. They provide an STC 52 rating when properly fitted with STC 55 or higher acoustic doors. That level of sound control means that loud sounds will be heard only faintly, or not at all, on the opposite side of the door, which satisfies the typical needs of recording studios, performance halls and cinemas. It is also suitable for office buildings and other commercial facilities that need to mute very loud noise originating from outside - such as the sound of aircraft overhead or heavy city traffic nearby - as well as interior equipment noise. An important component in this system, the #770 is recommended for ensuring the highest possible rating for most purposes, because it is fully adjustable.

