



CREATE AND PROTECT®

LISTENING TO DESIGN TRENDS

Everywhere you look, new, modern spaces are coming to life and while these open-concept spaces promote communication and collaboration, they also increase one main challenge – noise.

Now more than ever an optimal acoustic experience is as important as the look, feel and function of a space. And it starts by choosing the right ceiling material to achieve the best level of sound absorption for your space.



A FOCUS ON ABSORPTION FOR HIGHER PERFORMANCE

With greater awareness of the impact noise has on our daily lives, it's not surprising that building standards and guidelines are evolving with more stringent acoustic requirements. To meet many of these higher performance criteria, it's important to consider how every structure, surface, fixture, material and even gap plays a role in the way noise is experienced. For the best results, this means focusing on the true strength of ceiling panels – noise absorption.

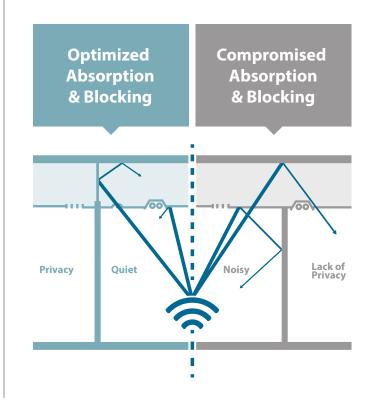
UNDERSTANDING THE REALITY OF BLOCKING

As you navigate the ceiling panel solutions available, you'll notice products on the market that attempt to absorb *and* block noise. There is a misconception that ceilings alone can block sound between rooms. The reality is, lightweight modular acoustic ceilings by themselves do not have enough mass to block sound. Additionally, ceiling systems will always have substantial noise leaks – created by installing light fixtures and air devices – making them even less effective at blocking sound.

By attempting to address both blocking and absorbing, those dual-purpose panels actually compromise both. Designers mistakenly sacrifice noise absorption for blocking (CAC - Ceiling Attenuation Class), and the blocking is simply not good enough. Instead, look to your ceiling panels to meet the high absorption requirements you need and to your walls for blocking, when it's needed. CAC is no longer compliant with most acoustic standards, guidelines and rating systems.

OPTIMIZED ACOUSTICS[™] FOR EFFECTIVE SOUND DESIGN

The idea is simple. Select a ceiling system to optimize absorption and where needed, use walls or plenum barriers to effectively block sound. This approach results in designs that comply with the standards and achieve the best sound experience at the best price.



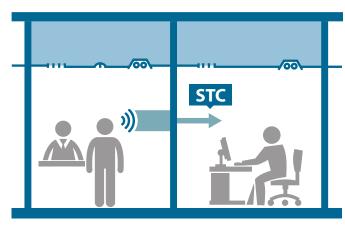
QUESTIONS TO CONSIDER FOR YOUR NEXT PROJECT

What are the needs of the space you are designing?

Noise Sensitivity: What will occupants be doing and how important are speech intelligibility, privacy and freedom from disruptive noise? High, moderate or low?

Noise Potential: How much noise is expected inside the room and from adjacent rooms? Is it high, moderate or low?

Requirements: Which acoustic standards or guidelines need to be met?



Meet sound blocking requirements between rooms by using full-height walls or lightweight plenum barriers.

GLOSSARY

What is NRC?

Noise Reduction Coefficient measures the amount of noise absorbed by a ceiling material.

What is STC?

Sound Transmission Class measures a wall's ability to block noise transfer between adjacent rooms.

What is CAC?

Ceiling Attenuation Class measures a ceiling panel's ability to block noise transfer between adjacent rooms.

The Optimized Acoustics[™] approach is easy and results in a true sound experience for building occupants. Meet both absorption and blocking performance criteria while enjoying the style of a smooth-finished ceiling system – without breaking the budget. **Hear the ROCKFON® difference at OptimizedAcoustics.com**

What level of absorption does the space need?

Typically, the higher the NRC the better. Ceilings lower than NRC 0.70 often require additional absorption on the walls.

High BETTER NRC 0.80 BEST NRC 0.90 BEST NRC 0.90 Medium GOOD NRC 0.70 BETTER NRC 0.80 BEST NRC 0.90 Low GOOD NRC 0.70 GOOD NRC 0.70 BETTER NRC 0.80 Examples of common spaces: Medium High Waiting room: Low Sensitivity/Medium Noise Potential GOOD (NRC 0.70 Restaurant: Low Sensitivity/High Noise Potential BETTER (NRC 0.80) Open office design: High Sensitivity/High Noise Potential BEST (NRC 0.80) Open office dosign: High Sensitivity/High Noise Potential BEST (NRC 0.80) Open office dosign: High Sensitivity/High Noise Potential BEST STC 50 GOOD STC 40 BETTER STC 45 Medium GOOD STC 40 BETTER STC 45 Medium GOOD STC 40 BETTER STC 45 Medium Low Medium High Low Medium High Low Medium High Cood STC 40 BETTER STC 45 BEST STC 50 Medium High Amount of noise in adjacent rooms Low Medium High Low Medium High Low GOOD STC 40 BETTER STC 45 Low <		NRC - O	ptimizing Good, Bette	er, Best*
Low Medium High Amount of noise inside the room Examples of common spaces: Waiting room: Low Sensitivity/Medium Noise Potential GOOD (NRC 0 Restaurant: Low Sensitivity/High Noise Potential BETTER (NRC 0.80) Open office design: High Sensitivity/High Noise Potential BEST (NRC 0. What level of blocking does the space need? Typically, adjacent rooms require STC of 40, 45 or 50. Values below 40 do not provide adequate speech privacy. STC - Optimizing Good, Better, Best* Medium Kensitivity/Low BETTER STC 45 BEST STC 50 BEST STC 50	ुष्ठ High	BETTER NRC 0.80	BEST NRC 0.90	BEST NRC 0.90
Low Medium High Amount of noise inside the room Examples of common spaces: Waiting room: Low Sensitivity/Medium Noise Potential GOOD (NRC 0 Restaurant: Low Sensitivity/High Noise Potential BETTER (NRC 0.80) Open office design: High Sensitivity/High Noise Potential BEST (NRC 0. What level of blocking does the space need? Typically, adjacent rooms require STC of 40, 45 or 50. Values below 40 do not provide adequate speech privacy. STC - Optimizing Good, Better, Best* Medium Kensitivity/Low BETTER STC 45 BEST STC 50 BEST STC 50	와 Medium 조	GOOD NRC 0.70	BETTER NRC 0.80	BEST NRC 0.90
Low Medium High Amount of noise inside the room Examples of common spaces: Waiting room: Low Sensitivity/Medium Noise Potential GOOD (NRC 0 Restaurant: Low Sensitivity/High Noise Potential BETTER (NRC 0.80) Open office design: High Sensitivity/High Noise Potential BEST (NRC 0. What level of blocking does the space need? Typically, adjacent rooms require STC of 40, 45 or 50. Values below 40 do not provide adequate speech privacy. STC - Optimizing Good, Better, Best* Medium Kensitivity/Low BETTER STC 45 BEST STC 50 BEST STC 50	ensitivi	GOOD NRC 0.70	GOOD NRC 0.70	BETTER NRC 0.80
Examples of common spaces: Waiting room: Low Sensitivity/Medium Noise Potential GOOD (NRC 0 Restaurant: Low Sensitivity/High Noise Potential BETTER (NRC 0.80) Open office design: High Sensitivity/High Noise Potential BEST (NRC 0. What level of blocking does the space need? Typically, adjacent rooms require STC of 40, 45 or 50. Values below 40 do not provide adequate speech privacy. STC - Optimizing Good, Better, Best* Medium High Medium Low Medium Low Medium Coop STC 40 Medium Medium Medium Medium Medium Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40 Patient room next to patient room: Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40 Patient room next to classroom: High Sensitivity/High Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Medium Sensitivity/High Noise Pot	Š	Low	Medium	High
Waiting room: Low Sensitivity/Medium Noise Potential GOOD (NRC 0 Restaurant: Low Sensitivity/High Noise Potential BETTER (NRC 0.80) Open office design: High Sensitivity/High Noise Potential BEST (NRC 0. What level of blocking does the space need? Typically, adjacent rooms require STC of 40, 45 or 50. Values below 40 do not provide adequate speech privacy. STC - Optimizing Good, Better, Best* High Medium Low GOOD STC 40 BETTER STC 45 BEST STC 50 BEST STC 50 BE		Amo	ount of noise inside the ro	oom
Restaurant: Low Sensitivity/High Noise Potential BETTER (NRC 0.80) Open office design: High Sensitivity/High Noise Potential BEST (NRC 0. What level of blocking does the space need? Typically, adjacent rooms require STC of 40, 45 or 50. Values below 40 do not provide adequate speech privacy. STC - Optimizing Good, Better, Best* High BETTER STC 45 BEST STC 50 BEST STC 50 GOOD STC 40 BETTER STC 45 BEST STC 50 Low Medium High Amount of noise in adjacent rooms Examples of common spaces: Office next to office: Low-Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40 Patient room next to patient room: Medium Sensitivity/Medium Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Examples of c	ommon spaces:		
Open office design: High Sensitivity/High Noise Potential BEST (NRC 0. What level of blocking does the space need? Typically, adjacent rooms require STC of 40, 45 or 50. Values below 40 do not provide adequate speech privacy. STC - Optimizing Good, Better, Best* BETTER STC 45 BEST STC 50 BEST STC 40 BETTER STC 45 BEST STC 45 BEST STC 45 BEST STC 50 BEST STC 50 Den office: Blocking not required	Waiting room:	Low Sensitivity/Me	edium Noise Potenti	al GOOD (NRC 0.
What level of blocking does the space need? Typically, adjacent rooms require STC of 40, 45 or 50. Values below 40 do not provide adequate speech privacy. STC - Optimizing Good, Better, Best* Medium Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40 Patient room next to patient room: Medium Sensitivity/Medium Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Restaurant: Lo	w Sensitivity/High	Noise Potential BE	TTER (NRC 0.80)
Typically, adjacent rooms require STC of 40, 45 or 50. Values below 40 do not provide adequate speech privacy. STC - Optimizing Good, Better, Best* Typically, adjacent rooms STC - Optimizing Good, Better, Best* Optimizing Good, Better, Best* Medium GOOD STC 45 BEST STC 50 BEST STC 40 Amount of noise in adjacent rooms Examples of common spaces: Office next to office: Low Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40 Patient room next to patient room: Medium Sensitivity/Medium Noise Potential BEST (STC 50) Classroom	Open office de	sign: High Sensitivi	ty/High Noise Poten	tial BEST (NRC 0.9
Medium GOOD STC 40 BETTER STC 45 BEST STC 50 Low GOOD STC 40 GOOD STC 40 BETTER STC 45 Low Medium High Amount of noise in adjacent rooms Amount of noise in adjacent rooms Examples of common spaces: Office next to office: Low-Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40) Patient room next to patient room: Medium Sensitivity/Medium Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Typically, adj	acent rooms requ	uire STC of 40, 45	or 50.
Low Medium High Amount of noise in adjacent rooms Examples of common spaces: Office next to office: Low-Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40) Patient room next to patient room: Medium Sensitivity/Medium Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Typically, adj	acent rooms requ v 40 do not provid	uire STC of 40, 45 de adequate spee	or 50. ch privacy.
Low Medium High Amount of noise in adjacent rooms Examples of common spaces: Office next to office: Low-Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40) Patient room next to patient room: Medium Sensitivity/Medium Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Typically, adj Values below	acent rooms requ v 40 do not provid stc - o	uire STC of 40, 45 de adequate spee ptimizing Good, Bette	or 50. ch privacy. r, Best*
Low Medium High Amount of noise in adjacent rooms Examples of common spaces: Office next to office: Low-Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40) Patient room next to patient room: Medium Sensitivity/Medium Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Typically, adj Values below	acent rooms requ v 40 do not provid STC - O BETTER STC 45	uire STC of 40, 45 de adequate spee ptimizing Good, Bette BEST STC 50	or 50. ch privacy. r, Best* BEST STC 50
Examples of common spaces: Office next to office: Low-Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40) Patient room next to patient room: Medium Sensitivity/Medium Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Typically, adj Values below	acent rooms requ v 40 do not provid STC - O BETTER STC 45 GOOD STC 40	uire STC of 40, 45 de adequate spee ptimizing Good, Bette BEST STC 50 BETTER STC 45	or 50. ch privacy. r, Best* BEST STC 50 BEST STC 50
Office next to office: Low-Medium Sensitivity/Low-Medium Noise Potential GOOD (STC 40) Patient room next to patient room: Medium Sensitivity/Medium Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Typically, adj Values below	acent rooms requ v 40 do not provid STC - O BETTER STC 45 GOOD STC 40 GOOD STC 40 Low	uire STC of 40, 45 of de adequate spee ptimizing Good, Bette BEST STC 50 BETTER STC 45 GOOD STC 40 Medium	or 50. ch privacy. r, Best* BEST STC 50 BEST STC 50 BETTER STC 45 High
Patient room next to patient room: Medium Sensitivity/Medium Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Typically, adj Values below ^{esi} ^{Noj} Medium Low esi	acent rooms requ v 40 do not provid STC - O BETTER STC 45 GOOD STC 40 GOOD STC 40 Low Amou	uire STC of 40, 45 of de adequate spee ptimizing Good, Bette BEST STC 50 BETTER STC 45 GOOD STC 40 Medium	or 50. ch privacy. r, Best* BEST STC 50 BEST STC 50 BETTER STC 45 High
Medium Sensitivity/Medium Noise Potential BETTER (STC 45) Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Typically, adj Values below eight High of thing the dium thing the dium the dium the dium the dium the dium the dium	acent rooms requ v 40 do not provid BETTER STC 45 GOOD STC 40 Low Amor ommon spaces:	uire STC of 40, 45 of de adequate spee ptimizing Good, Bette BEST STC 50 BETTER STC 45 GOOD STC 40 Medium	or 50. ch privacy. r, Best* BEST STC 50 BEST STC 50 BETTER STC 45 High
Classroom next to classroom: High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Typically, adj Values below High Values below High Medium Low Examples of c	acent rooms requ v 40 do not provid BETTER STC 45 GOOD STC 40 Low Amor ommon spaces: office:	uire STC of 40, 45 of de adequate spee ptimizing Good, Bette BEST STC 50 BETTER STC 45 GOOD STC 40 Medium unt of noise in adjacent ro	or 50. ch privacy. r, Best* BEST STC 50 BEST STC 50 BETTER STC 45 High
High Sensitivity/High Noise Potential BEST (STC 50) Open office: Blocking not required	Typically, adj Values below High Medium Low Examples of c Office next to 4 Low-Medium 5 Patient room r	acent rooms requ v 40 do not provid STC - O BETTER STC 45 GOOD STC 40 Low Amon ommon spaces: office: Sensitivity/Low-Meenext to patient room	uire STC of 40, 45 of de adequate spee btimizing Good, Bette BEST STC 50 BETTER STC 45 GOOD STC 40 Medium unt of noise in adjacent ro dium Noise Potentia n:	or 50. ch privacy. r, Best* BEST STC 50 BEST STC 50 BETTER STC 45 High coms
Open office: Blocking not required	Typically, adj Values below High Medium Low Examples of c Office next to Low-Medium S Patient room r Medium Sensi	acent rooms requ v 40 do not provid BETTER STC 45 GOOD STC 40 Low Amor Ommon spaces: office: Sensitivity/Low-Men tivity/Medium Nois	uire STC of 40, 45 of de adequate spee btimizing Good, Bette BEST STC 50 BETTER STC 45 GOOD STC 40 Medium unt of noise in adjacent ro dium Noise Potentia n:	or 50. ch privacy. r, Best* BEST STC 50 BEST STC 50 BETTER STC 45 High coms
	Typically, adj Values below High Medium Low Examples of c Office next to Low-Medium Sensi Classroom nex	acent rooms requ v 40 do not provid BETTER STC 45 GOOD STC 40 Low Amor Ommon spaces: office: Sensitivity/Low-Mean tivity/Medium Nois at to classroom:	uire STC of 40, 45 of de adequate spee ptimizing Good, Bette BEST STC 50 BETTER STC 45 GOOD STC 40 Medium unt of noise in adjacent ro dium Noise Potentia n: ie Potential BETTE	or 50. ch privacy. r, Best* BEST STC 50 BEST STC 50 BETTER STC 45 High ooms Al GOOD (STC 40- R (STC 45)
The values in these tables are based on the acoustic criteria sections of current standards,	Typically, adj Values below High Medium Low Examples of c Office next to Low-Medium Sensi Classroom nex High Sensitivit	acent rooms requ v 40 do not provid STC - O BETTER STC 45 GOOD STC 40 Low Amon ommon spaces: office: Sensitivity/Low-Mean tivity/Medium Noise tt to classroom: cy/High Noise Poter	uire STC of 40, 45 de de adequate spee BEST STC 50 BETTER STC 45 GOOD STC 40 Medium unt of noise in adjacent ro dium Noise Potentia n: se Potential BETTER	or 50. ch privacy. r, Best BEST STC 50 BEST STC 50 BETTER STC 45 High ooms Al GOOD (STC 40- R (STC 45)

under adues in these tables are based on the acoustic criteria sections of current standards guidelines and building rating systems including ANSI/ASA \$12.60-2010 (schools), WELL Building Standard 2016 GSA PBS-P100 2016 (office buildings), The FGI Guidelines 2014 (healthcare facilities), and LEED v4 ID+C (sustainable buildings). We believe our acoustic stone wool and metal solutions for ceilings and walls are a fast and simple way to create beautiful, comfortable and safe spaces.

Easy to install and durable, they protect people from noise and the spread of fire. They are our way of making a constructive contribution towards a sustainable future.

Create and Protect is what drives us. It means putting people first, sharing success and maintaining trust.

It's our rock-solid promise to you. At ROCKFON, Create and Protect is what we do and it's inspired by you.

May 2016

Get more facts at **OptimizedAcoustics.com**

ROCKFON, LLC

4849 S. Austin Ave. Chicago, IL 60638 USA Toll free: 1-800-323-7164 Fax.: 1-800-222-3744 cs@rockfon.com www.rockfon.com SNL# 150044



CREATE AND PROTECT®