

# QR™ Diffuser

Quadratic Residue Ceiling Diffuser

## Acoustical Performance

(Coefficients)

Frequency (Hz)	125	250	500	1K	2K	4K
Absorption	.49	.41	.37	.35	.20	.21
Diffusion	.68	.75	.85	.82	.72	.59

## QR™ Diffuser

Lightweight for ceilings and walls

White textured finish, colors optional

Thickness: 4"

Sizes (Nominal): 24", 48" height by 24", 48" width

Fire Performance Rating: Class A

Dimensional Tolerances 1/4"

Special sizes available, consult AVL Systems

## Description

AVL Systems QR™ Quadratic Residue Diffuser is a lightweight acoustical control device for mounting in standard grid ceilings and wall surfaces. These products are designed to achieve optimal performance incorporating quadratic residue number sequences and computer modeling analysis combined with laboratory and application testing. AVL Systems QR™ Quadratic Residue Diffusers are manufactured to provide broadband wide-range scattering of acoustical sound energy without resonance or high-Q reflections. AVL Systems QR™ Quadratic Residue Diffusers are constructed of multi-density, thermo-molded resins to dampen resonance and resist impact and damage. The complete multi-density product is inert, non-combustible, dimensionally stable, and will not resonate, warp, or separate. Products are supplied to finish sizes as specified and ready to install in standard grid ceiling systems and on wall surfaces. AVL Systems QR™ Quadratic Residue Diffusers are ecologically friendly, containing up to 85% recycled materials.



## Applications

AVL Systems QR™ Quadratic Residue Diffusers are ideal for music education and rehearsal facilities, auditoriums, places of worship, studios, A/V and conference rooms, and many other architectural spaces where proper sound control is a consideration. The design of these products allows the specifier to provide for diffusion to backscatter and properly blend original sounds. This feature helps performers hear themselves with others, improves speech intelligibility, and increases clarity and tonal separation for music and performances without significantly reducing reverberation times. The result is clear, spacious, natural sound to be appreciated by performers and enjoyed by the room's listeners.

## Interactive Performance

The AcousTech™ and DiSorb™ families of interactive performance products are designed to provide the acoustical engineer and specifier with a complete toolbox of technically compatible performance products for every application. These engineered products can be used together as an interactive system, working together to optimally enhance the acoustics of any architectural space. AVL Systems offers a full range of acoustic products for virtually every application and technical requirement.

## Warranty

AVL Systems Limited Warranty extends for one full year from the original date of shipment. All AVL Systems, Inc. published literature, presentations and data are correct to the best of our knowledge at the time of publication. AVL Systems, Inc. reserves the right to change or amend any of the products presented or the information we publish without liability or notice.



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