



Description

QuietZone Quilted Absorber is a high performance noise control product. It is versatile, reducing reverberant (reflected) noise energy and is a low cost solution to many noise problems. The product possesses high mechanical strength making it an excellent alternative to urethane foams.

QuietZone Quilted Absorber can withstand a wide temperature range, making it ideal for systems with low or high temperature patterns. The product is easy to clean, impervious to dust, dirt, oils and most chemicals. It will not deteriorate, providing a long service life.

Uses

Owens Corning's *QuietZone* Quilted Absorber is ideal for temporary or permanent applications. The absorbers are flexible and portable.

Features and Benefits

High Performance

QuietZone Quilted Absorber has an NRC up to 0.80 based on the type of wall mount prescribed. (See ASTM C 423 test results below based on mounting type.)

Wide Temperature Ranges

QuietZone Quilted Absorber can withstand temperatures from -20°F to 180°F. An optional high temperature facing carries a continuous service temperature limit of -40° to 400°F.

Environmentally Safe

QuietZone Quilted Absorber contains no lead.

Versatile and Convenient

The product is available in a variety of industrial facings to perfectly fit your application. It is available in rolls, precut panels, die cut parts, bound or unbound edges.

Durable

QuietZone Quilted Absorber is oil and chemical resistant. The product is moisture resistant and will not rot, shrink or degrade.

Maintenance Free

QuietZone Quilted Absorber is virtually maintenance free and can be steam cleaned as needed.

Application

QuietZone Quilted Absorber is an attractive suspended curtain which can be directly applied to a hard reflective wall surface or suspended 1 1/2" off the wall to increase sound absorption characteristics. The product can be used in the following settings:

- Noise absorbing liners for OEM
- Housings and enclosures
- Engine compartment liners
- Absorptive lining for factory walls or other reflective surfaces
- Internal or external linings for low to medium velocity HVAC systems
- Operator labs and control rooms

Sound Absorption Coefficients

Tested in accordance to ASTM C 423-02 within a NVLAP accredited laboratory.

1/3 octave band data available upon request.

Type A Mount (Specimen directly applied to a hard, solid surface.)

Product	Frequency (Hz)						NRC	SAA
	125	250	500	1000	2000	4000		
QZC10Q F/B	0.00	0.28	0.75	0.95	0.60	0.32	0.65	0.65
QZC10Q F/F	0.05	0.05	0.76	0.93	0.59	0.34	0.65	0.63
QZC10Q S/B	0.04	0.25	0.90	0.47	0.23	0.11	0.45	0.46
QZC20Q F/B	0.07	0.63	0.84	0.81	0.62	0.41	0.75	0.71
QZC20Q F/F	0.11	0.79	1.02	0.73	0.50	0.32	0.75	0.74

Nomenclature: F/B – fiberglass cloth facer/scrims backed; F/F – fiberglass cloth facer both sides; S/B – high temperature silicone treated facer fiberglass cloth/scrims backed.

Technical Information

The fundamental component of *QuietZone* Quilted Absorber is a low binder, fine fiber, acoustically absorptive, fiber glass batting. A nonporous, fiber glass cloth facing material is quilted directly to the fiberglass batting using high strength thread and locking stitches, creating a stable encasement. The product's exterior surface is stitched, forming a 4" diamond matrix which encapsulate the glass fibers. When the facing material on the stable encasement is subjected to airborne sound waves, the individual membrane face responds diaphragmatically (like a drum head) and transmits sound energy into the fiber glass batting core material where it is dissipated as thermal energy.

Surface Availability

QuietZone Quilted Absorber can be produced in single layer (1") or double layer (2") thicknesses. The double layer thickness increases troublesome low frequency absorption. Depending on the application requirements, the quilted absorber can be faced on one or both sides. Available facings include the standard vinyl coated fiberglass cloth, impervious high-temperature silicone coated fiber glass cloth which is quilted using a nylon stitching thread, or a non-maintenance, nonwoven, porous, scrim fabric. The three facing materials can be used individually or in combination on the same absorber so that special properties or economics can be achieved.

QuietZone™ Quilted Absorber

Sound Absorption Coefficients

Tested in accordance to ASTM C 423-02 within a NVLAP accredited laboratory.

¹/₃ octave band data available upon request.

Type J Mount (Specimen hung with 1¹/₂" air gap between blanket and wall.)

Product	Frequency (Hz)						NRC	SAA
	125	250	500	1000	2000	4000		
QZC10Q F/B	0.05	0.37	0.94	0.87	0.54	0.34	0.70	0.68
QZC10Q F/F	0.10	0.32	0.94	0.74	0.55	0.35	0.65	0.64
QZC10Q S/B	0.02	0.49	0.65	0.43	0.22	0.10	0.45	0.46
QZC20Q F/B	0.09	0.65	0.92	0.83	0.60	0.42	0.75	0.72
QZC20Q F/F	0.11	0.80	1.01	0.77	0.54	0.35	0.80	0.77

Product Description

Product	Quilt Thickness	Standard Width	Roll Length	Facing	Backing
QZC10Q F/B	1"	54"	25'	Standard*	SB Scrim**
QZC10Q F/F	1"	54"	25'	Standard*	Standard*
QZC10Q S/B	1"	54"	25'	High Temperature Silicone ***	SB Scrim**
QZC20Q F/B	2"	54"	25'	Standard*	SB Scrim**
QZC20Q F/F	2"	54"	25'	Standard*	Standard*

* Standard Facing: -20°F to 180°F,

Colors: Grey & Tan (Other colors available in quantity.)

** Spun Bonded Polyester Scrim (SB): 100% Nonwoven polyester

*** High Temperature Silicone Facing: -40°F to 400°F

Surface Burning Characteristics

Tested in accordance to ASTM E 84.

Product	Flame Spread	Smoke Development	Classification
QZC10Q F/B	20	45	Class A
QZC10Q F/F	20	45	Class A
QZC10Q S/B	5	10	Class A
QZC20Q F/B	20	45	Class A
QZC20Q F/F	20	45	Class A

The ASTM E 84 standard should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment, which takes into account all of the factors, which are pertinent to an assessment of the fire hazard of a particular end use. Values are reported to the nearest 5 rating.

Flame Propagation Characteristics

Tested in accordance to NFPA 701.

(Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.)

Product	Result
QZC10Q F/B	Pass
QZC10Q F/F	Pass
QZC10Q S/B	Pass
QZC10Q F/B	Pass
QZC10Q F/F	Pass



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