

## Section 03540

### Impact Sound Control Matting

### Recommended Specification for Quiet Qurl® Sound Control Matting

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#### Part I General

##### 1.1 Summary

- A. This section is for the recommended guidelines for specifying a floating floor and Quiet Qurl® sound control matting.
- B. This document will provide the details to specify and install a sound control system that includes matting, accessories and a finished floating structural surface for accepting final floor treatments. It includes drawings and details as designated by the architect or acoustical consultant. The scope of the work shall be for the contractor to furnish the materials, labor, supervision and equipment necessary to install the entire system in a single bid.
- C. Related Sections:
  - 1. Cast-in-place concrete: Refer to Division 3
  - 2. Insulation: Refer to Division 7
  - 3. Joint treatments Refer to Division 7
  - 4. Gypsum wall board Refer to Division 13
  - 5. Flooring Refer to Division 9
  - 6. Mechanical/electrical Refer to Division 15/16
  - 7. Other appropriate project-specific specifications sections

##### 1.2 References

- A. General: Refer to Division 1 References Section

##### 1.3 System Description

- A. Performance Requirements: Provide sound control flooring system, which has been manufactured and installed to achieve STC and IIC performance levels that exceed code requirements of not less than 50 for each rating.

##### 1.4 Submittals

- A. General: Prepare, review, approve and submit specified submittals in accordance with "Conditions of the Contract" and Division 1 Submittals Sections. Product data, shop drawings, samples and similar submittals are defined in "Conditions of the Contract."
- B. Product Data: Submit manufacturer's product data **with independent testing of actual floor assembly** and laboratory results of sound control system. Provide report of tested STC level and IIC level.
- C. Shop Drawings: Submit shop drawings that show layout, profiles and product components, including accessories for sound control system.
- D. Samples: Submit verification samples for sound control matting and isolation material.
- E. Quality Assurance/Control Submittals:

1. Test Reports Certification: Submit certified test reports from an acceptable independent testing laboratory that indicate compliance with applicable results of performance characteristics and physical properties.
2. Certificates (Qualification Data): Submit product certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical requirements, and showing full-time quality control.
3. System: Ensure that one manufacturer supplies system.
4. Certified, trained applicators can only install the Keene Building Products™ Quiet Qurl® System.

F. Closeout Submittals:

1. Warranty: Submit warranty documents specified herein.
2. Project Record Documents: Submit project record documents for installed materials in accordance with Division 1 Project Closeout (Project Record Documents) Section.

### 1.5 Quality Assurance

A. Qualifications:

1. Installer Qualifications: Ensure that contractor is trained by KEENE BUILDING PRODUCTS and can provide job references. If using another floating floor type, ensure proper contracting license and experience for project.
2. Manufacturer's Qualifications: Manufacturer should provide pre-job conference and on-site inspection, and report on project at conclusion.
3. Each floor of every building should be tested for FIIC and FSTC by a certified acoustical consultant.

### 1.6 Delivery, Storage, and Handling

- A. Ordering: Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- B. Packing, Shipping, Handling and Unloading: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Protect materials from exposure to harmful weather conditions, and store at temperature conditions recommended by manufacturer.

### 1.7 Project Conditions/ Site Conditions

- A. Project Conditions: Refer to "Conditions of the Contract" for control and responsibility of project site, including means, methods and techniques of construction by the contractor.

## Part II Products

Manufacturers

- A. Acceptable Manufacturer: Keene Building Products  
P. O. Box 241353  
Mayfield Heights, Ohio 44124.  
Phone: 440 605 1020  
Fax: 440 605 1120

B. Standard Product Data (choose one of the products listed below)

**Properties for Quiet Qurl® Impact Sound Control Matting**

(Selection in order of performance):

Quiet Qurl 52/013 RF	with 0.75" gypsum concrete underlayment
Quiet Qurl 55/025 RF	with 0.75" gypsum concrete underlayment
Quiet Qurl 55/025 MC	with 1.0" gypsum concrete underlayment
Quiet Qurl 55/025 MC MT	with 1.25" gypsum concrete underlayment
Quiet Qurl 55/025 RF MT	with 1.0" gypsum concrete underlayment
Quiet Qurl 60/040	with 1.0" gypsum concrete underlayment
Quiet Qurl 60/040 RF	with 1.0" gypsum concrete underlayment
Quiet Qurl 65/075 MC	with 1.5" gypsum concrete underlayment, reinforced with RWT
Quiet Qurl 65/075 RF	with 1.5" gypsum concrete underlayment, unreinforced

**Physical Properties for Quiet Qurl® 52/013 RF**

Description	Means of Measurement English/Metric		Value English/Metric	
Flame Spread	ASTM E84		Class A	
Core Polymer	Polypropylene, UV-Stabilized			
Thickness	Inches	Mm	0.125	3.0
Total Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	9.7	325
Core Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	6.4	250
Fabric Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	2.3	75

**Physical Properties for Quiet Qurl® 60/040**

Description	Means of Measurement English/Metric		Value English/Metric	
Flame Spread	ASTM E84		Class A	
Core Polymer	Polypropylene, UV-Stabilized			
Thickness	Inches	Mm	0.40	10.0
Total Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	20.0	682
Core Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	17.0	581
Fabric Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	3.0	105

**Physical Properties for Quiet Qurl® 55/025 MC**

Description	Means of Measurement English/Metric		Value English/Metric	
Core Polymer	Polypropylene			
Thickness	Inches	Mm	0.25	6.0
Total Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	17.9	600
Core Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	14.9	500
Fabric Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	3.0	100

**Physical Properties for Quiet Qurl® 55/025 MC MT – Luxury Performance with Muffling Technology and Enhanced High Loft Fabric**

Description	Means of Measurement		Value	
	English/Metric		English/Metric	
Core Polymer	Polypropylene			
Thickness	Inches	Mm	0.25	6.0
Total Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	20.4	720
Core Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	14.9	500
Fabric Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	3.5	120
2nd Fabric Weight	oz/yd <sup>2</sup>	g/m <sup>2</sup>	3.0	100

**Impact Insulation Classification – ASTM E492-96 for Quiet Qurl® 60/040**

Subfloor Type	Ceiling	Floating Floor Type	Floor	IIC Number
Wood Joists	Ceiling with RC	Gypsum Concrete	Vinyl	56
Wood Joists	Ceiling with RC	Gypsum Concrete	Wood	58
Wood Joists	Ceiling with RC	Gypsum Concrete	Carpet	71
Wood Joists	Ceiling with RC	Gypsum Concrete	Tile	54
Wood Joists	Ceiling with RC	Gypsum Concrete	Gypsum	53

**Impact Insulation Classification for Quiet Qurl® 55/025 MC**

Subfloor Type	Ceiling	Floating Floor Type	Floor	IIC Number
Concrete	No Ceiling	Gypsum Concrete	Vinyl	54
Concrete	No Ceiling	Gypsum Concrete	Wood	55
Concrete	Ceiling with RC	Gypsum Concrete	Vinyl	64
Concrete	Ceiling with RC	Gypsum Concrete	Wood	68
Wood Truss Joists	Ceiling with RC	Gypsum Concrete	Wood	61
Wood Truss Joists	Ceiling with RC	Gypsum Concrete	Vinyl	56

**Impact Insulation Classification for Quiet Qurl® 55/025 MC MT**

Subfloor Type	Ceiling	Floating Floor Type	Floor	IIC Number
Wood Truss Joists	Ceiling with RC	Gypsum Concrete	Wood	61
Wood Truss Joists	Ceiling with RC	Gypsum Concrete	Vinyl	60
Wood Truss Joists	Ceiling with RC	Gypsum Concrete	Bare Gypsum	58
Wood Nominal Lumber	Ceiling with RC	Gypsum Concrete	Wood	57
Wood Nominal Lumber	Ceiling with RC	Gypsum Concrete	Vinyl	56
Wood Nominal Lumber	Ceiling with RC	Gypsum Concrete	Ceramic	55
Wood Nominal Lumber	Ceiling with RC	Gypsum Concrete	Bare Gypsum	54

## Other Accessories:

Acoustical Sealant: A permanently resilient, non-shrinking, latex-based sealant

Adhesive: PL Premium as manufactured by OSI, Mentor, Ohio; Liquid Nails subfloor adhesive as manufactured by ICI, Cleveland, Ohio

Duct Tape or Cellophane Tape: 2" (5-cm)

Quiet Qurl® Perimeter Isolation: See data sheet.

Quiet Qurl® Gypsum Concrete Reinforcement: See data sheet.

Spray Adhesive: Super 77™ as manufactured by 3M™

## 2.1 Alternates and Substitutions

A. Alternate: In lieu of providing below-specified base bid/contract manufacturer, provide below-specified alternate manufacturers. Refer to Division 1 Alternates Section.

1. Base Bid/Contract Manufacturer/Product: Quiet Qurl® Impact Sound Control System, Keene Building Products™

## 2.2 Related Materials

- A. Concrete: Refer to Division 3
- B. Insulation: Refer to Division 7
- C. Sealant: Refer to Division 7

## 2.3 Source Quality Control

A. Single-Source Responsibility: Obtain all soundproofing materials from single source for required warranty.

## Part III Execution

### 3.1 Surface Condition

- A. Subfloor shall be structurally sound. Deflection shall not exceed  $L/360$  of the span, including live and dead loads.
- B. Subfloor shall be dry and debris-free; partition walls shall be installed with gypsum wall board in place, and the subfloor should be flat to 0.25" (6 mm) in 100 feet (3 square meters).

### 3.2 Installation

(Please see installation instructions for proper details)

Specifier's Note: It is necessary to install an overlay over the Quiet Qurl® to receive and support the finished flooring. The overlay varies with the type of finish flooring. The overlays are: 1" (3.2-cm) mortar bed, 7/16" (11-mm) WonderBoard, 1.5" (4-cm) lightweight concrete (1800 PSI [12.4 MPa]), 1.0" (2.5-cm) gypsum concrete (2000 PSI minimum [13.8 MPa]), or two layers of minimum 1/2" (1.3-cm) plywood. Specific installation details are described in our installation bulletins.

A. Finished Flooring:

1. After the finished flooring is installed, trim the perimeter isolation barrier below the finished flooring. Fill the groove with a bead of acoustical or elastomeric sealant. Do not allow ceramic tile, grout, GYPSUM concrete, lightweight concrete, mortar bed or plywood to come in contact with the wall. Shim the molding above the finished flooring and caulk with acoustical sealant.

## END OF SECTION

### **Warranty**

Limited Warranty: Keene Building Products, Inc. warrants to the initial purchaser only that the goods sold hereunder will be free from defects in material and workmanship and, except as otherwise set forth herein, will conform to the specifications provided. If any failure to meet this warranty appears within one year from the date of shipment of the goods, Keene Building Products, Inc. will correct any such failure by either replacing or repairing any defective goods, at Keene Building Products, Inc.'s option.

The preceding paragraph sets forth the exclusive remedy for all claims based on failure of or defect in the goods sold hereunder, whether such failure or defect arises before or during the warranty period and whether a claim, however instituted, is based on contract, indemnity, warranty, tort (including negligence), strict liability or otherwise. The forgoing warranty is exclusive and is in lieu of all other warranties, whether written, oral, implied or statutory.