**alumaGRIL Rigid Grille**

Section: 12484 / 12 48 16

FLOOR GRILLES AND FRAMES

1. **PART ONE - GENERAL**
2. SUMMARY
	1. Section Includes
		1. Floor Grille and Frame Assemblies
	2. Related Sections
		1. Section 03300 - Cast-In-Place Concrete: For concrete floor slab recess, and grouting frames into recess.
		2. Section 07110 - Damp-proofing.
		3. Section 15150 - Sanitary Waste and Vent Piping: For floor drain if applicable.
3. REFERENCES
	1. American Society for Testing and Materials (ASTM)
		1. ASTM B 221-93 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes
		2. ASTM B 455-91 Standard Specification for Copper-Zinc-Lead Alloy (Leaded-Brass) Extruded Shapes.
	2. American Architectural Manufacturers Association (AAMA)
		1. AAMA 606.1 Voluntary Guide Specifications and Inspection Methods for Integral Color Anodic Finishes for Architectural Aluminum
		2. AAMA 607.1 Voluntary Guide Specifications and Inspection Methods for Clear Anodic Finishes for Architectural Aluminum.
4. SUBMITTALS
	1. Product Data: Manufacturers product specifications, installation and maintenance instructions.
	2. Shop Drawings: Show layout and types of grilles and frames not less than half-scale sections of typical installations, details of patterns or designs, anchors, and accessories, and field measurements of slab recess to receive frames grilles (if applicable).
	3. Samples for Selection Purposes: Actual sections of grille and frame material in a convenient but representative size showing full range of colors, textures, finishes and patterns available for each type of floor grille and frame specified.
	4. Samples for Verification Purposes: Not less than 6 inch square sections of grille material and 6 inch (152 mm) length of frame material in selected colors and finishes for each type of grille and frame specified.
	5. Installation, Operations and Maintenance data.
5. QUALITY ASSURANCE
	1. Single Source Responsibility: Obtain floor grilles and frames from one source and from a single manufacturer
	2. Rolling load of 1500 pounds per wheel
	3. Uniform load of 80,000 lbs per sq ft
6. SUBSTITUTIONS
	1. Proposals for substitution products shall be accepted only from bidding contractors and not less than (10) working days before bid due date. Contractor guarantees that proposed substitution shall meet the performance and quality standards of this specification.
7. PROJECT CONDITIONS
	1. If product is to be recessed, coordinate with concrete work so that products are available for placing integrally with floor slabs.
8. WARRANTY
	1. Floor mats and frames shall be fabricated free of defects in materials and workmanship in accordance with the General Conditions, and the manufacturer shall offer a 5 year warranty against defects in materials and workmanship.
9. **PART TWO - PRODUCTS**
10. ACCEPTABLE MANUFACTURERS

Provide **alumaGRIL** rigid grilles by

Babcock-Davis

9300 73rd Avenue North

Brooklyn Park, MN 55428

PH: 888.412.3726

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1. DESIGN CRITERIA
	1. Rolling Load: 1550 lbs/wheel.
2. ENTRANCE SYSTEM FLOOR GRILLE
	1. Model: **alumaGRIL** Rigid Grille
	2. Aluminum Rail: ASTM B221, alloy 6061-T6
	3. Rail Finish: Rail finish shall be supplied in mill
	4. Rail Spacing: .6875 inches (17.5 mm) o.c.
	5. Construction: I-Beam rails joined by bolt-thru design with aluminum spacers.
	6. Fasteners: Non-corrosive screws and anchors for securing frames together and to floors
	7. **TREADS** **(SPECIFIER TO SELECT TREAD(s) BELOW AND DELETE OTHERS)**
		* 1. **alumaGRI**L rigid grille with rectangular tread.
				1. Treads: T shaped, ½” (12.7 mm) x 1/8” (3.2 mm) x 1” (25.4 mm). Spacing between treads not to exceed 3/16” (4.8 mm). Rail surface to be striated at 1” (12.7 mm) centers to create rectangular grid pattern.
				2. Rail Spacers: ½” (12.7 mm) aluminum tube.
				3. Grille Sections: Each section shall be no greater than 48” (1220 mm) x 48” (1220mm). All sections to be supplied with individual, pre-fabricated, factory assembled frames.
			2. a**lumaGRIL** rigid grille with waffle tread.
				1. Treads: T shaped, ½” (12.7 mm) x 1/8” (3.2 mm) x 1” (25.4 mm). Spacing between treads not to exceed 3/16” (4.8 mm). Rail surface to be striated at ½” (12.7 mm) centers to create square grid pattern for multi-directional traffic.
				2. Rail Spacers: ½” (12.7 mm) aluminum tube.
				3. Grille Sections: Each section shall be no greater than 48” (1220 mm) x 48” (1220mm). All sections to be supplied with individual, pre-fabricated, factory assembled frames.
			3. **alumaGRI**L rigid grille with plank treads.
				1. Treads: T shaped, ½” (12.7 mm) x 1/8” (3.2 mm) x 1” (25.4 mm). Spacing between treads not to exceed 3/16” (4.8 mm). Rail Spacers: ½” (12.7 mm) aluminum tube.
				2. Grille Sections: Each section shall be no greater than 48” (1220 mm) x 48” (1220mm). All sections to be supplied with individual, pre-fabricated, factory assembled frames.
3. ENTRANCE SYSTEM FLOOR GRILLE FRAME **(SPECIFIER TO SELECT ONE BELOW AND DELETE OTHERS).**
4. Aluminum Frame: Extruded 6061-T6 aluminum alloy
5. Frame Finish: mill, clear anodized or bronze anodized.
6. Construction: All aluminum frames shall be pre-assembled at factory incorporating welded construction for all joints. Each grille section shall incorporate an invisible section divider integrilled and welded within the frame. Frames and grilles shall be shipped fully assembled in protective wooden crating to each jobsite. For sections larger than 6'‑0 by 8'‑0 a mechanical joint is to be provided, (if specified).
7. Mounting:
	1. Aluminum Cast-in Place, Level Bed frame,1/2” (12.7mm) profile; 1 1/12” (27.4mm) overall depth.
	2. Aluminum Cast-in Place, Deep Pit frame, 1/2” (12.7mm) profile; 2” (50.8mm) overall depth.
8. **PART 3 - EXECUTION**
9. EXAMINATION
10. Products must be placed on a flat and level substrate. Substrate shall meet tolerance of 1/8" (3.2mm) over 10 feet (3.28M) in accordance with ACI 302.
11. Examine the substrates and conditions under which the work is to be performed, and notify the Contractor in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the installation until unsatisfactory conditions have been corrected.
12. INSTALLATION
13. Install products in accordance with manufacturer’s instructions, at locations shown and with top of products level with adjoining finished flooring where applicable.
14. Coordinate top of product surfaces with swinging doors to provide under-door clearance.

1. Provide necessary shims, spacers, and anchorages for proper location and secure attachment of frames to concrete.

2. For installation in terrazzo flooring, contact manufacturer.

1. PROTECTION
2. Upon completion of frame installations, provide temporary filler of plywood or fiberboard in grille recesses, and cover frames with plywood protective flooring. Maintain protection until construction traffic has ended and Project is near time of Substantial Completion.
3. Install product when no further wheeled construction traffic will occur and wet type operations including painting and decorating are complete.