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EVALUATION REPORT

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UNIMAST EXPANDED METAL LATH AND ACCESSORIES

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1.0 SUBJECT

Unimast Junior Diamond Mesh Lath, Asphalt Paper-backed Metal Lath, 4-Mesh Z-Riblath, $\frac{3}{8}$ Inch Riblath, Cornerite, Striplath, 1A Expanded Corner Bead, No. 66 Casings Cold-rolled Channel.

2.0 DESCRIPTION

2.1 Unimast Junior Diamond Mesh Lath:

2.1.1 General: The Junior Diamond mesh lath is a 0.10-inch-thick (2.5 mm) galvanized expanded metal lath with $\frac{1}{2}$ -inch-by- $\frac{5}{16}$ -inch (12.7 by 7.9 mm) mesh. It is available as standard (flat), dimpled self-furring and V-groove self-furring lath. Dimpled self-furring lath has $\frac{1}{4}$ -inch (6.4 mm) indentations spaced at $1\frac{1}{2}$ inches (38 mm) on center in each direction. The V-groove self-furring lath has a continuous $\frac{1}{4}$ -inch (6.4 mm) groove running in the long direction of the sheet, with rows spaced at 6 inches (152 mm) on center. Dimpled and V-groove lath are color-coded and the furred side is to be installed against the wall. See Figure 1.

Laths are manufactured from steel complying with ASTM A 366-91 and are coated in accordance with ASTM A 924-94, ASTM A 591-89 or ASTM A 653-94. The products are available in sheets 27 inches (686 mm) wide by 96 inches (2438 mm) long and in weights of 2.5 and 3.4 pounds per square yard (1.36 and 1.84 kg/m²).

2.1.2 Application: Metal lath sheets are attached to metal, wood or concrete supports with the long edge of the sheets perpendicular to the supports, and the sheets are lapped $\frac{1}{2}$ inch (12.7 mm) on the sides and 1 inch (25.4 mm) on the ends. The ends of sheets must be staggered between courses. When the ends do not meet over a support, they must be securely tied together with not less than 0.049-inch (1.24 mm) (No. 18 B.W. gage) wire. Maximum spacing of supports and attachment to supports are as described in Table 25-B, Item 1, and in Table 25-C, Item 1, of the code.

2.2 Unimast Asphalt Paper-backed Metal Lath:

2.2.1 General: Unimast asphalt paper-backed metal lath incorporates Junior Diamond mesh lath with a factory-bonded asphalt paper. The asphalt paper is manufactured by Fortifiber Corporation (ICBO ES Evaluation Report ER-1025); the paper complies with UBC Standard 14-1 as Type I, Grade D, Style 2 (Jumbo Tex), or as Type I, Grade B, Style 1a (Aquabar). The paper-backed lath satisfies the requirements for a weather-resistive barrier, as specified in Section 1402.1 of the code.

2.2.2 Application: Asphalt paper-backed metal lath is attached to supports in a manner similar to the attachment for Junior Diamond mesh lath. Wire must be lapped a minimum of $\frac{1}{2}$ inch (12.7 mm) on the sides and 1 inch (25.4 mm) on the ends. The upper paper layer must be lapped over the lower paper layer not less than 2 inches (51 mm) on long edges and not less than 6 inches (152 mm) on ends, in accordance with Section 1402.1 of the code.

2.3 Unimast 4-Mesh Z-Riblath:

2.3.1 General: Unimast 4-Mesh Z-Riblath is a 0.10-inch-thick (2.5 mm) flat rib expanded metal lath with a herringbone pattern of parallelogram-shaped meshes approximately $\frac{3}{8}$ inch by $\frac{5}{16}$ inch (9.5 by 7.9 mm). The flat rib runs continuously in the long direction of the lath, with the ribs at $1\frac{1}{2}$ inches (38 mm) on center. Sheets are manufactured from steel complying with ASTM A 366-91, and are coated in accordance with ASTM A 924-94, ASTM A 581-89 or ASTM A 653-94. The products are available in sheets 27 inches (686 mm) wide by 96 inches (2438 mm) long and in weights of 2.75 and 3.4 pounds per square yard (1.49 and 1.84 kg/m²). See Figure 1.

2.3.2 Application: Unimast 4-Mesh Z-Riblath is attached to metal, wood or concrete supports with the long edge of the sheet perpendicular to the supports, and is lapped $\frac{1}{2}$ inch (12.7 mm) on the sides and 1 inch (25.4 mm) on the ends. The ends of sheets must be staggered between courses. When the ends do not meet over a support, they must be securely tied together with not less than 0.049-inch (1.24 mm) (No. 18 B.W. gage) wire. Maximum spacing of supports and attachment to wood and metal supports are as described in Table 25-B, Item 2, and in Table 25-C, Item 1, of the code.

2.4 Unimast $\frac{3}{8}$ Inch Riblath:

2.4.1 General: Unimast $\frac{3}{8}$ Inch Riblath is 0.10-inch-thick (2.5 mm) galvanized expanded metal lath with a herringbone pattern of parallelogram-shaped meshes approximately $\frac{3}{8}$ inch by $\frac{5}{16}$ inch (9.5 mm by 7.9 mm). Three-eighths-inch-deep (9.5 mm) ribs, continuous in the long direction of the sheet, are spaced at $4\frac{1}{2}$ inches (114 mm) on center. Intermediate stiffeners are equally spaced between the ribs. Sheets are manufactured from steel complying with ASTM A 366-91, and are coated in accordance with ASTM A 924-94, ASTM A 581-89 or ASTM A 653-94. The products are available in sheets 27 inches (686 mm) wide by 96 inches (2438 mm) long and have a weight of 3.4 pounds per square yard (1.84 kg/m²). See Figure 1.

2.4.2 Application: Unimast $\frac{3}{8}$ Inch Riblath is attached to metal, wood or concrete supports with the long edge of the sheet perpendicular to the supports, and is lapped at the sides by nesting outside ribs and on the ends by a lap of 1 inch (25.4 mm). Ends of sheets must be staggered between courses. When the ends do not meet over a support, they must be securely tied together with not less than 0.049-inch

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(1.24 mm) (No. 18 B.W. gage) wire. Maximum spacing of supports and attachment to wood and metal supports are as described in Table 25-B, Item 4, and in Table 25-C, Item 2, of the code.

2.5 Unimast Cornerite:

Cornerite is manufactured from strips of Junior Diamond mesh lath. The strips are bent in the center to a 100-degree angle and are available with 2-inch (51 mm) or 3-inch (76 mm) legs in 97-inch (2464 mm) lengths; the strips have a minimum weight of 1.75 pounds per square yard (0.95 kg/m²). See Figure 1. Cornerite is used to reinforce between unlapped metal lath at interior corners and between masonry construction and non-ferrous lath. It must be installed in all internal corners but may be omitted when the metal lath is continuous through the corner to the next support or when plaster is not continuous from one plane to another. The metal lath is butted into the corner. The Cornerite is placed over the lath and is attached with 0.049-inch (1.24 mm) (No. 18 B.W. gage) wire ties along the edges at 9 inches (229 mm) on center.

2.6 Unimast Striplath:

Striplath is manufactured from strips of Junior Diamond mesh lath 4 inches (102 mm) or 6 inches (152 mm) in width and 97 inches in length (2464 mm). Its weight is a minimum of 1.75 pounds per square yard (0.95 kg/m²). See Figure 1. The strips are used as reinforcement between dissimilar plaster or lathing bases. Striplath is attached to metal lath with 0.049-inch (1.24 mm) (No. 18 B.W. gage) wire ties along the edges at 9 inches (229 mm) on center.

2.7 Unimast No. 66 Casing Beads:

Unimast No. 66 casing beads are used as plaster stops, as exposed trim around window and door openings, and at the intersection of plaster and dissimilar surfaces. Expanded flange casing beads have a 3¹/₄-inch (82 mm) flange and are available with grounds of 3¹/₈, 1¹/₂, 5¹/₈, 3¹/₄, 7¹/₈, 1 and 1¹/₄ inches (9.5, 12.7, 15.9, 19.1, 22, 25.4 and 31.7 mm). The expanded flange casing beads also have a 1¹/₄-inch (6.4 mm) lip return. Solid flange casing beads have a 1¹/₄-inch (31.7 mm) flange with grounds of 1¹/₂, 3¹/₄, 7¹/₈ and 1 inch (12.7, 19.1, 22 and 25.4 mm). They have a 1¹/₄-inch (6.4 mm) return lip. See Figure 1. All casing beads are available in 10-foot (3048 mm) lengths. Expanded flange casing beads are manufactured using 0.0176-inch-thick (0.45 mm) galvanized steel or 0.0207-inch-thick (0.53 mm) zinc. Solid flange casing beads are manufactured using 0.0176-inch-thick (0.45 mm) galvanized steel. The steel complies with ASTM C 366-91 and is galvanized in accordance with ASTM A 924-94, ASTM A 591-89 or ASTM A 653-94. The zinc complies with ASTM B 69-92. No. 66 casing beads are attached to metal lath with 0.049-inch (1.24 mm) (No. 18 B.W. gage) wire so as to retain position during plastering.

2.8 Unimast 1-A Expanded Cornerbead:

Unimast 1-A expanded cornerbead is outside corner trim with 1¹/₈-inch (3.2 mm) nosing and 2⁷/₈-inch (73 mm) expanded metal flanges. See Figure 1. It is available in galvanized steel or zinc. The steel complies with ASTM C 366-91 and is galvanized in accordance with ASTM A 924-94, ASTM A 591-89 or ASTM A 653-94. The zinc complies with ASTM B 69-92. Expanded cornerbead is attached to metal lath with 0.049-inch (1.24 mm) (No. 18 B.W. gage) wire so as to retain position during plastering.

2.9 Unimast #7 Foundation/Sill Screed:

Unimast #7 Foundation/Sill Screed is used as a straight-edge stop at the sill plate line. The part is manufactured with weep holes and complies with Section 2506.5 of the code. It is manufactured from 0.0190-inch-thick (0.48 mm) (No. 26 gage) ASTM A 366 cold-rolled galvanized steel. See Figure 1.

The product has a 3¹/₂-inch (89 mm) flange and is available with 7¹/₈-inch (22 mm) and 1³/₈-inch (35 mm) grounds and a 1¹/₄-inch (6.4 mm) lip return. The product is available in standard 10-foot-0-inch (3048 mm) lengths.

2.10 Unimast J-Metal/Weeps:

Unimast 1³/₈-inch (35 mm) J-Metal/Weeps are manufactured from 0.0190-inch (0.48 mm) (No. 26 gage) ASTM A 366 cold-rolled galvanized steel. They are used as a trim around door and window openings. The parts are manufactured with weep holes. They may also be used as weep screeds in accordance with Section 2506.5 of the code.

They have a 3¹/₂-inch (89 mm) flange and a 1³/₈-inch (35 mm) ground and a 1¹/₄-inch (6.4 mm) lip return. They are manufactured in standard 10-foot-0-inch (3048 mm) lengths. See Figure 1.

2.11 Unimast Cold-rolled Channel:

Unimast cold-rolled channel is used in furred and suspended ceilings and as furring in plaster construction on vertical assemblies. It is available in 3¹/₄-, 1¹/₂- and 2-inch-deep (19.1, 38 and 51 mm) sections with 1¹/₂-inch (12.7 mm) return lips and 10-, 16- and 20-foot (3048, 4877 and 6096 mm) lengths. See Figure 1. The steel complies with ASTM A 568-93a and has a corrosion-resistant coating in accordance with ASTM A 924-94, ASTM A 591-89 or ASTM A 653-94. Dimensions and weight are as noted in Table 1.

Maximum allowable spans for main runners or cross-furring in suspended and furred ceilings of plaster are as noted in Table 25-A of the code, with the following limitations:

1. Ceiling weight is not more than 10 pounds per square foot (4.89 kg/m²).
2. Installation is in Seismic Zones 0 and 1.
3. The system supports ceilings at one level that extend from wall to wall but do not exceed 50 feet (15 240 mm) in dimension.

Details must be provided to the building official with respect to vertical loads and lateral resistance where installation exceeds the requirements noted above.

2.12 Identification:

Metal lath products are identified with a tag that bears the name of the manufacturer, the product name, the weight and the evaluation report number (ICBO ES ER-5236). Lath products are end-painted as follows: 1.75 pounds per square yard (0.95 kg/m²) is not painted, 2.5 and 2.75 pounds per square yard (1.36 and 1.49 kg/m²) are end-painted white, and 3.4 pounds per square yard (1.84 kg/m²) is end-painted red. Paper-backed products are labeled in accordance with Evaluation Report ER-1025.

Cornerite, Striplath, casing beads J-Metal/Weeps, #7 Foundation Sill/Screed and expanded cornerbead are packaged in cartons bearing a label with the name of the manufacturer, the product name, the dimensions and the evaluation report number (ICBO ES ER-5236). Products manufactured from zinc are so indicated on the carton.

Each bundle of cold-rolled channel bears a tag with the name of the manufacturer, the material thickness, the yield strength and the evaluation report number (ICBO ES ER-5236).

3.0 EVIDENCE SUBMITTED

Product descriptions and material specifications.

4.0 FINDINGS

That the Unimast expanded metal lath products and cold-rolled channel described in this report comply with the 1997 Uniform Building Code™, subject to the following conditions:

- 4.1 The products are manufactured, identified and installed in accordance with this report and the manufacturer's instructions.

- 4.2 Unimast expanded metal lath may be used for vertical diaphragms noted in Table 25-I, Item 1, of the code when installed as noted in the table.
- 4.3 Unimast cold-rolled channel may be used for sus-

ended and furred ceilings when installed as noted in Section 2.11 of this report.

This report is subject to re-examination in two years.

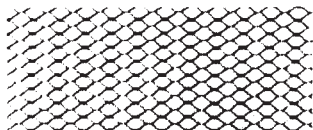
TABLE 1—UNIMAST COLD-ROLLED CHANNEL

SIZE (inches)	MINIMUM MATERIAL THICKNESS (inch)	WEIGHT (pound per foot of length)
3/4	0.0538	0.30
1 1/2	0.0620	0.47
2	0.0620	0.59

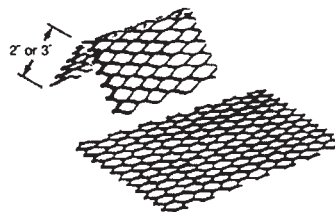
For SI: 1 inch = 25.4 mm, 1 pound per foot = 1.488 164 kg/m.

UNIMAST INCORPORATED PLASTERING PRODUCTS

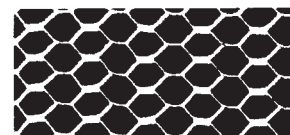
metal Lath



UNIMAST Junior Diamond Mesh Lath



UNIMAST Cornerite & UNIMAST Striplath



UNIMAST Asphalt Paper-Backed Metal Lath

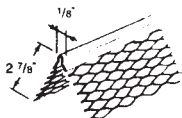


UNIMAST 4-Mesh Z-Riblath

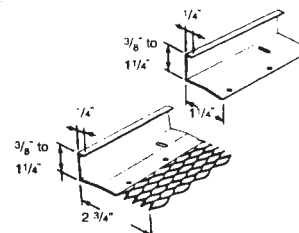


UNIMAST 3/8" Riblath

Beads & Trims

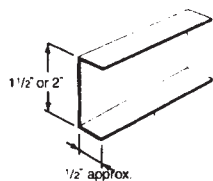


UNIMAST 1-A Expanded Corner Bead

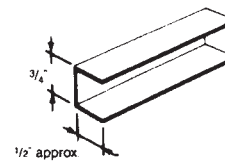


UNIMAST #66 Casing Beads

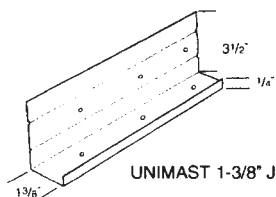
Channels



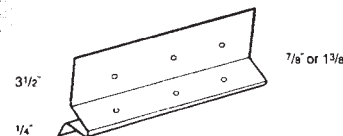
UNIMAST Cold-Rolled Channel



creeds & Weep



UNIMAST 1-3/8" J-Metal



UNIMAST #7 Foundation Screenshot

For SI: 1 inch = 25.4 mm.



FIGURE 1—UNIMAST EXPANDED METAL LATH AND ACCESSORIES