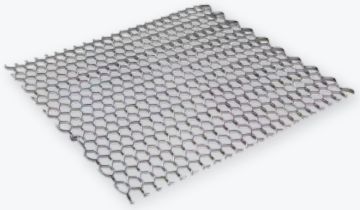
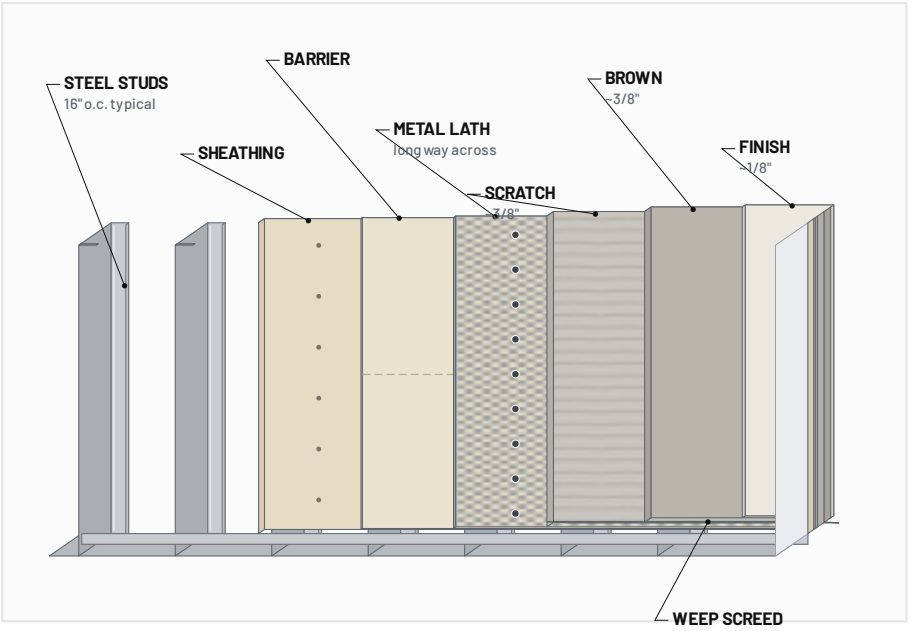
METAL LATH

Galvanized diamond mesh lath for plaster, stucco, stone veneer and tile · 1.75 and 2.5 lb/yd²



METAL LATH
Galvanized diamond mesh, 1.75 and 2.5 lb



PRODUCT 22 · LATH & MESH

Saturn Metal metal lath is a **galvanized diamond mesh**: a light steel sheet opened into many small diamonds. Fastened to framing, it is the base for **Portland cement plaster (stucco)**, **interior plaster**, **adhered stone veneer** and **tile mortar beds**. The first coat is pushed through the openings, wraps the strands and hardens into a solid key, so the plaster is held by the steel across the whole surface. Two weights: **1.75 lb/yd²** and **2.5 lb/yd²**.

- Small, stiff diamonds that key plaster and mortar
- G60 galvanized steel to ASTM A653
- Flat 27" wide sheets that lap, cut and bend easily
- Bundles of 10 sheets, about 20 yd²

TYPE	WEIGHTS	SHEET	COATING	BUNDLE	STANDARD
Diamond mesh	1.75 · 2.5 lb/yd²	27" × 96" / 97"	G60 galvanized	10 sheets	ASTM C847

1 FOUR NAMES, ONE PRODUCT

Metal lath
The general name: an expanded steel base that plaster and mortar lock into.

Diamond mesh lath
Names the opening: many small diamonds across the sheet.

Expanded metal lath
Says how the mesh is formed: one sheet slit and opened into a mesh.

Stucco lath
A site name when it carries exterior cement plaster.

2 THE PARTS OF THE LATH

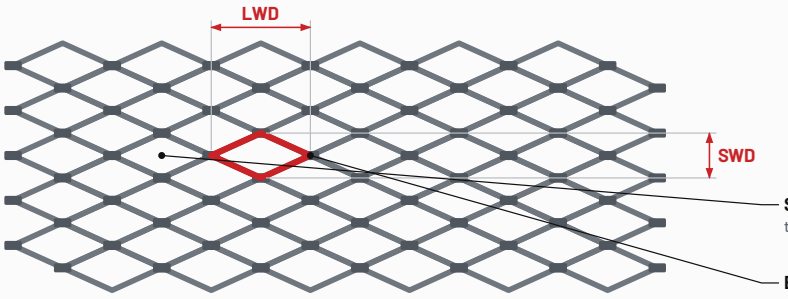
1. **Strands.** the narrow steel ribbons around each opening
2. **Bonds.** where strands meet; they hold the sheet together
3. **Diamond openings.** plaster pushes through and keys behind the strands
4. **Galvanized steel.** G60 zinc coating for corrosion protection

KEYS PLASTER	GALVANIZED	TWO WEIGHTS	EASY TO WORK
Through every opening	G60 zinc coat	1.75 and 2.5 lb/yd²	Laps, cuts and bends

THE MESH & SPECIFICATIONS

Two weights, sheet sizes, bundles and the standards

3 THE DIAMOND MESH



STRAND
the steel between openings

BOND
where strands join

LWD = long way of the diamond
SWD = short way of the diamond

Run the LWD across the supports

SECTION THROUGH THE STRANDS



Strands sit at an angle: plaster pushed in wraps each strand and locks behind it

BARRIER / BACKING

ENLARGED, SCHEMATIC · OPENING SIZE VARIES WITH THE LATH

4 SPECIFICATIONS

TYPE	Expanded metal lath, diamond mesh, flat
WEIGHTS	1.75 lb/yd² and 2.5 lb/yd²
SHEETS	1.75 lb: 27" × 96" · 2.5 lb: 27" × 97"
STEEL	Galvanized steel sheet, ASTM A653, G60 coating
BUNDLE	10 sheets, about 20 yd²
STANDARD	2.5 lb/yd² is a diamond mesh weight listed in ASTM C847
INSTALLATION	ASTM C1063 (lathing); plaster to ASTM C926 or C842

5 WHICH WEIGHT?

2.5 lb/yd²

The usual choice for exterior stucco, adhered stone veneer and walls with studs at 16" o.c. Stiffer between supports, and the weight listed in ASTM C847.

1.75 lb/yd²

A lighter lath for interior plaster, tile mortar beds, small areas and repairs, on closer support spacing. Check that the project specification allows it.

6 SHEETS AND BUNDLES

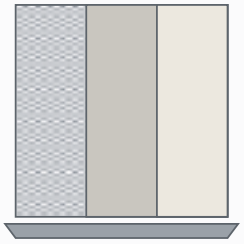
WEIGHT	SHEET	SHEET AREA	SHEET WEIGHT	BUNDLE	BUNDLE AREA	BUNDLE WEIGHT
1.75 lb/yd²	27" × 96"	18.0 ft² · 2.00 yd²	≈ 3.5 lb	10 sheets	≈ 20 yd²	≈ 35 lb
2.5 lb/yd²	27" × 97"	18.2 ft² · 2.02 yd²	≈ 5.1 lb	10 sheets	≈ 20 yd²	≈ 51 lb

Areas and weights calculated from the nominal weight and sheet size; actual values vary slightly.

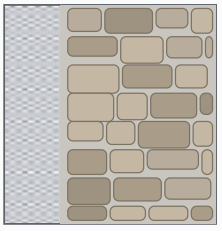
WHERE IT GOES & HOW IT WORKS

Stucco, stone veneer, interior plaster and tile beds

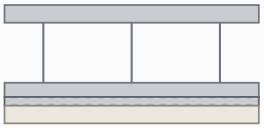
7 WHERE IT GOES



EXTERIOR STUCCO
cement plaster on framing

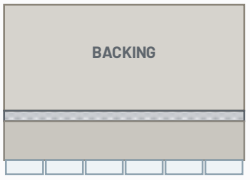


ADHERED STONE VENEER
lath, scratch coat, stone



channel grid · lath · plaster

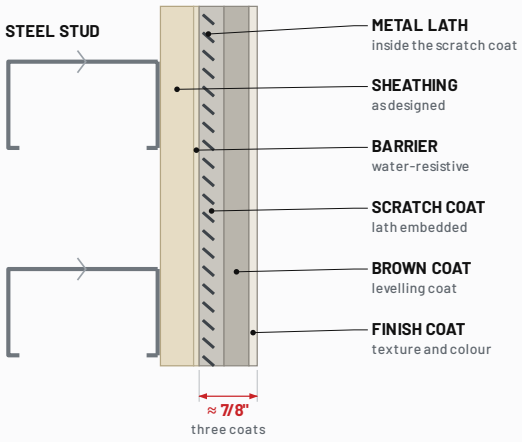
PLASTER CEILINGS & WALLS
interior plaster base



TILE MORTAR BED
mud-set walls and floors

SKETCHES · NOT TO SCALE

8 THE SYSTEM, IN SECTION



The lath is fastened through the barrier into the framing. The **scratch coat** is pushed hard into the mesh so it passes through the openings and closes around every strand; its surface is scored to grip the next coat. The **brown coat** brings the wall to a flat plane and the **finish coat** gives the texture and colour. The three coats are about 7/8" thick in total.

Because the plaster is keyed to the steel over the whole surface, the lath carries the plaster to the framing and helps control cracking.

9 WHICH LATH WHERE

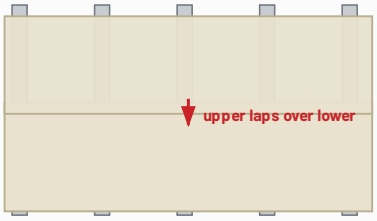
APPLICATION	LATH	NOTES
Exterior stucco on framing	**2.5 lb**	Over a water-resistive barrier; weep screed at the base
Adhered stone or masonry veneer	**2.5 lb**	Scratch coat first; follow the veneer installation instructions
Interior plaster walls and ceilings	1.75 or 2.5 lb	Weight and support spacing per the specification
Tile mortar bed (mud-set)	1.75 or 2.5 lb	Over a cleavage or waterproof membrane where required
Repairs and small areas	1.75 lb	Lap onto sound lath; fasten to framing

INSTALLATION, STEP BY STEP

Barrier, hang, lap, fasten, corners and scratch coat

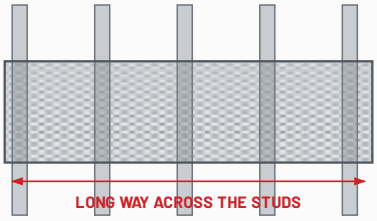
10 SIX STEPS TO A LATH BASE

1 Barrier first



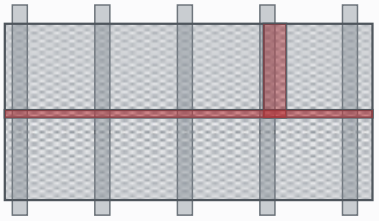
On exterior walls, install the water-resistive barrier over the sheathing, shingle-lapped so upper layers lap over lower ones. Set the weep screed at the base.

2 Long way across



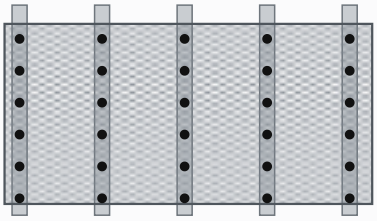
Hang each sheet with its long dimension across the studs or joists, starting at the bottom. The strands should slope up and inward so plaster keys and does not slide.

3 Lap the sheets



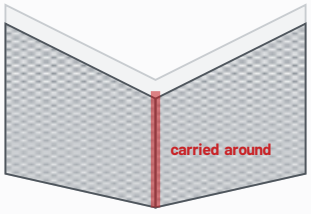
Lap sides at least 1/2" and ends at least 1". Make end laps on a support and stagger them from row to row. Nest the meshes at laps.

4 Fasten



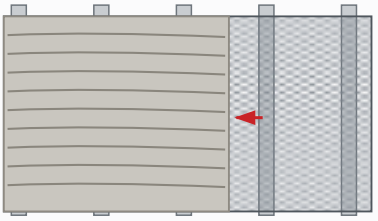
Fasten at every support, about 6" apart, with corrosion-resistant screws, nails or staples suited to the framing (ASTM C1063). Tie side laps between supports with 18 ga tie wire.

5 Corners and edges



Carry the lath around inside corners rather than stopping at them, and add corner and edge accessories and control joints where the design shows.

6 Scratch coat



Push the scratch coat hard through the mesh until the lath is fully embedded, then score it across. Follow the plaster specification for the brown and finish coats.

Sharp edges. Cut lath and sheet edges are sharp. Put on leather gloves and eye protection to handle and cut it, and carry sheets flat.

11 BEFORE YOU START

Tools

Aviation snips, tape, chalk line, screw gun or stapler, pliers for tie wire, gloves and eye protection.

Materials

Metal lath of the specified weight, barrier and weep screed (exterior), fasteners for the framing, 18 ga tie wire, accessories.

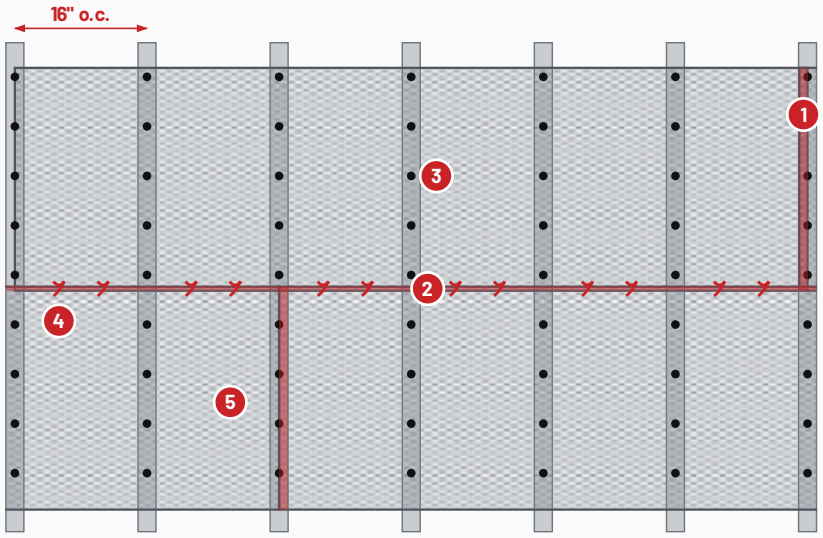
Framing

Studs or joists plumb and in line at the specified spacing; sheathing and openings ready.

LAPS, FASTENING & CARE

Laps, ties and fasteners, common problems and fixes

12 LAPS, FASTENING AND TIES



1. **END LAP · 1" MIN.**
   on a support, staggered row to row
2. **SIDE LAP · 1/2" MIN.**
   meshes nested
3. **FASTENERS AT EACH SUPPORT**
   about 6" apart (ASTM C1063)
4. **TIE WIRE AT SIDE LAPS**
   18 ga, between supports
5. **LONG WAY ACROSS THE STUDS**
   27" side runs up the wall

13 FASTENING BY BACKING

BACKING	FASTENING	NOTES
Steel studs or joists	Corrosion-resistant screws with washers or wafer heads	Through the lath and barrier into the framing
Wood framing	Galvanized nails or staples	Penetration into the wood as ASTM C1063 requires
Ceilings on channel	Tie wire to the channels, or screws	Supports at the spacing the specification sets
Masonry or concrete	Over furring, fastened to the furring	Flat lath is held off solid surfaces so plaster can embed it

14 TROUBLESHOOTING

YOU SEE	LIKELY CAUSE	FIX
Plaster sags or slumps	Lath loose between supports, or long way along the studs	Run the long way across; add fasteners and ties
Cracks along a lap	Lap too short or not tied	Lap 1/2" sides, 1" ends; tie side laps
Rust stains	Damaged coating or wrong fasteners	Use galvanized or corrosion-resistant fasteners; replace damaged lath
Crack at a corner	Lath stopped at the inside corner	Carry lath around corners; add corner reinforcement

15 DO & DON'T

DO	Run the long way of the sheet across the supports.
DO	Make end laps on a support and stagger them.
DO	Store bundles flat and dry, off the ground and covered.
DON'T	Butt sheets edge to edge without a lap.
DON'T	Fasten flat lath tight against concrete or masonry; use furring.

QUESTIONS, SPECIFYING & NOTICE

Common questions, estimating, standards and a specification guide

16 COMMON QUESTIONS

1.75 lb or 2.5 lb?
2.5 lb for exterior stucco, stone veneer and 16" support spacing; 1.75 lb for lighter interior work on closer supports, where the specification allows it.

Which way does the sheet go?
The long way across the supports, with the strands sloping up and inward.

How much do I lap?
At least 1/2" at the sides and 1" at the ends, with end laps on a support.

Can I put it straight on concrete?
Flat lath is held off solid surfaces on furring so the plaster can wrap the strands.

Do I need tie wire?
Yes, at side laps between supports and to fix lath to ceiling channels. Use 18 ga tie wire (DS-16).

How many sheets per 100 ft²?
About 5.7 sheets with 1/2" side and 1" end laps, plus waste for cuts and openings.

17 ESTIMATING

WEIGHT	NET AREA PER SHEET (AFTER LAPS)	SHEETS PER 100 FT²	BUNDLES PER 1,000 FT²
1.75 lb	≈ 17.5 ft²	≈ 5.7	≈ 5.7
2.5 lb	≈ 17.7 ft²	≈ 5.7	≈ 5.7

Before waste. Add for cuts, openings and corners as your takeoff shows.

18 STANDARDS

ASTM C847	Metal lath
ASTM C1063	Installation of lathing and furring to receive Portland cement-based plaster
ASTM C926	Application of Portland cement-based plaster
ASTM A653	Steel sheet, zinc-coated (galvanized) by the hot-dip process

19 SPECIFICATION GUIDE

Metal lath: Saturn Metal galvanized diamond mesh expanded metal lath, G60 zinc coating to ASTM A653, [2.5 lb/yd², 27" × 97"] [1.75 lb/yd², 27" × 96"] sheets. Install per ASTM C1063 with the long dimension across supports, side laps not less than 1/2" and end laps not less than 1" on supports, end laps staggered, fastened at each support and tied at side laps between supports with 18 ga tie wire. Plaster per ASTM C926.

Related: DS-01 interior steel stud framing · DS-02 load-bearing stud framing · DS-10 carrying channel · DS-11 furring channel · DS-16 tie wire · DS-23 security mesh
Technical questions and quotes: +1 (416) 746-8000 · Sales@SaturnMetal.ca · www.SaturnMetal.ca

IMPORTANT NOTICE

This data sheet gives general product information only. It is not engineering, design or installation advice. A qualified design professional must review every application, and the building code and project documents always govern. Lath weight, support spacing, fasteners, barriers, accessories and control joints must follow the project specification, the building code and ASTM C1063. Drawings are schematic and not to scale unless noted; dimensions are nominal and subject to standard tolerances. Values marked typical, approximate or commonly specified are for reference only. Standards are referenced by name for identification; always use the edition required by the governing code. Saturn Metal may change products and information without notice; confirm current data before ordering or specifying. Warranties and remedies, if any, are only those in Saturn Metal's written terms of sale. Names of standards bodies belong to their owners. Saturn Metal is a metal products manufacturer and/or supplier; this sheet does not mean the product is manufactured by Saturn Metal. © Saturn Metal