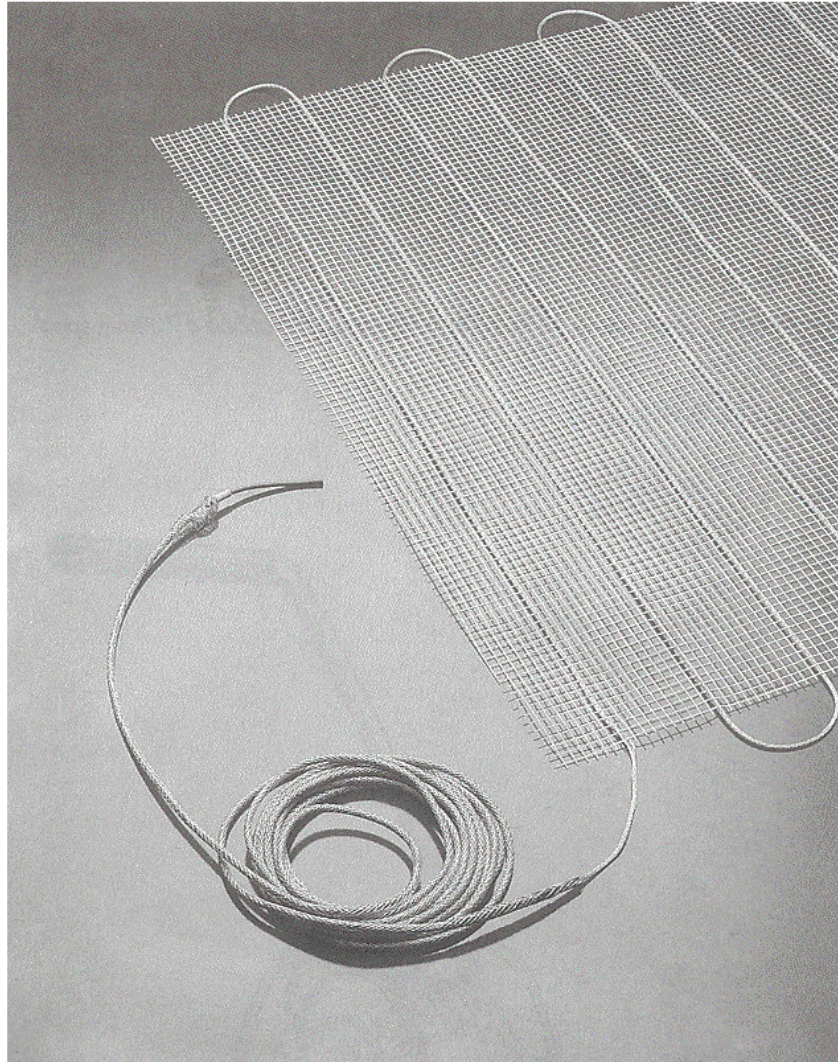


# ESWA MILLIMAT

**Warm, Affordable, Undertile Heating**



**E S W A – Invisible Heating Solutions**

# ESWA MILLIMAT



Tiled floors are a natural choice for kitchens, bathrooms, hallways – just about any room in the house. They look good, are hard wearing and are easy to keep clean BUT are cold underfoot. Eswa Millimat is easy to install, maintenance free, and is an ideal solution for new, renovation purposes, or anywhere a warm tiled floor is required.

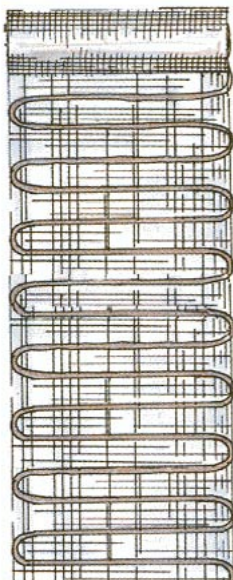
The Eswa Millimat is of slim construction with excellent bond capabilities eliminating installation problems, it is safe, space saving and above all warm. The mat is a twin conductor heating cable attached to a flexible plastic grid creating even heat distribution. The average thickness of each mat is approximately 3mm. The heating cable has PTFE insulation and a braided earth screen. It comes complete with 5m cold leads.

**With the Eswa Millimat installation is easy**, it can be laid on concrete or wooden floors – if the mat is to be fitted on a combustible (timber) floor an incombustible board should be laid first to comply with Wiring Regulations.

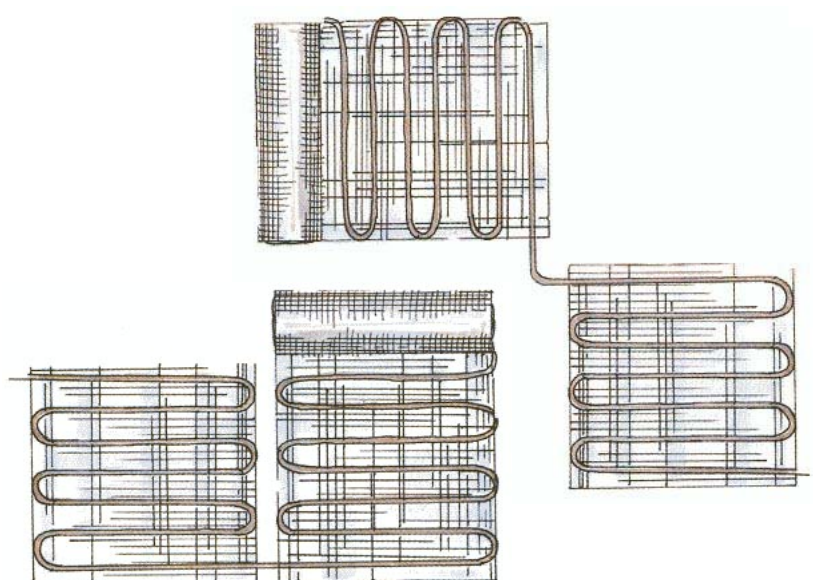
- (1) Having confirmed the size of the area to be heated, and the correct type of Millimat and load having been obtained, the mat can be laid making the necessary adjustments to fit the room shape by cutting the mat between the cable runs with scissors. **UNDER NO CIRCUMSTANCES MUST THE HEATING CABLE BE CUT.**
- (2) A minimum distance of 50mm between cable loops must be maintained.

The Eswa Millimat can be adjusted to fit the shape of rooms to be tiled. Examples of some are shown below:-

**Mat as delivered:**



**Separation of plastic grid:**



### **Fitting the Eswa Millimat:**

Most commonly the Millimat is covered by ceramic tiles. The Millimat is laid with the cable side down. A hot melt glue gun can be used to fix the mat and the cold leads into position. After fixing the Millimat and the thermostat sensor to the sub-floor a tile adhesive, recommended for warm floors, is applied by using a tooth shaped applicator ensuring that the adhesive is properly distributed through the Millimat grid. The tiles should be fixed in accordance with the Manufacturer's instructions.

Other types of flooring materials can also be used but, in such cases the Millimat should be covered by a 10mm layer of special mortar or self-levelling compound.

### **Caution:**

Care must be taken when cutting or adjusting the mat to fit the floor area so that the heating cable is not damaged in any way. The mat must not be bent in such a way that the heating cable is twisted or overlapped. Do not install the mat in areas where the floor will be permanently covered by fixed furniture, i.e. kitchen cupboards, baths, shower trays, etc. Remove sharp edges or objects from the floor surface before installing and be careful when walking on the mat during the installation and the covering operation.

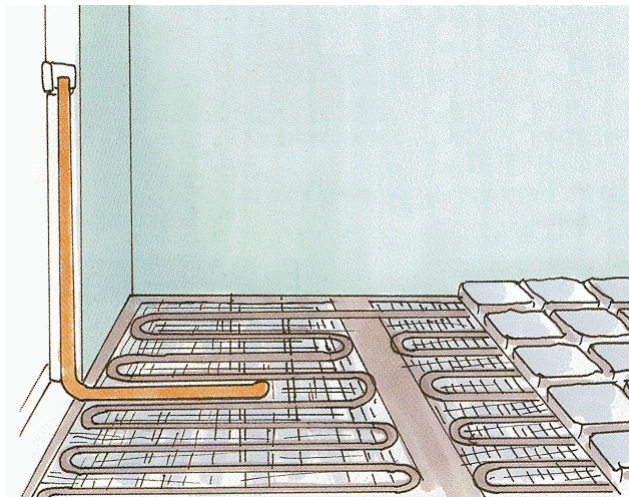
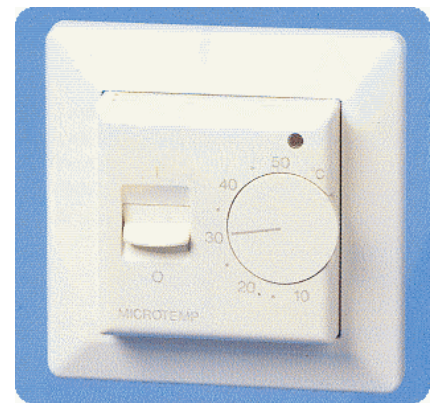


Diagram of installation of the Millimat



Remote electronic thermostat

### **Thermostatic control:**

In all areas a thermostat with a floor sensor is the minimum recommendation. For optimum control we recommend the use of a remote electronic thermostat and sensor. The sensor should be positioned between the Millimat element cable runs and connected to a wall mounted thermostat which senses the air temperature as well as the floor, or ones with built in programmers are also available.

### **Electrical connections:**

The cold leads from the Eswa Millimat are to be connected to 230V through the thermostat. The electrical connections should be carried out by a qualified electrician and comply with current Wiring Regulations, especially with regard to bathrooms where the earthed sheath is required to be connected to the equipotential bonding.

### Typical size of the Eswa Millimat:

Type	Size (cm)	Area (m <sup>2</sup> )	Total Load (W @ 230 V)	Nominal Area loading (W/m <sup>2</sup> @ 230V)
MW 3040	40 x 150	0.6	84	140
MW 3041	40 x 300	1.2	168	140
MW 3042	40 x 450	1.8	252	140
MW 3043	40 x 600	2.4	336	140
MW 3044	40 x 900	3.6	504	140
MW 3050	80 x 150	1.2	168	140
MW 3051	80 x 300	2.4	336	140
MW 3052	80 x 450	3.6	504	140
MW 3053	80 x 600	4.8	672	140
MW 3054	80 x 900	7.2	1008	140

### NOTE:

Whilst installation may be carried out by a competent person, connection to the mains supply should be carried out by a qualified electrician. In particular in bathrooms, the Wiring Regulations require that the earthed sheath of the cable is connected to the equipotential bonding. Also, to comply with the Regulations, heating cables must not be in direct contact with combustible materials.

This heating cable unit has been tested several times during production. Final insulation resistance and conductor resistances have been measured.

It is essential that the same measurements are taken before, during and after the installation in order to detect any damage that might occur during installation of the Millimat or during the final covering.

If the heating cable is damaged, it must be replaced by a new heating cable before the construction is completed.

All final measurements MUST BE recorded and the form (enclosed with the Millimat) has to be properly filled in, signed and dated.

### GUARANTEE:

**This is a quality heating product supplied by Eswa Limited. It carries with it a Manufacturers' ten year warranty subject to correct installation and operation. But note:**

**The Guarantee must be signed by the installer and kept by the fuse box.**

**For more information on the Eswa Millimat contact:**

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**Telephone: 01 408 1255 / Facsimile 01 408 1256**