



NATIONAL TERRAZZO & MOSAIC ASSOCIATION

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TECHNICAL BULLETIN #G-20

8/13, 6/19, 4/22

(Formerly TB#66)

THERMAL SYSTEMS UNDER A TERRAZZO FLOOR SYSTEM

Heating coils embedded in Portland cement terrazzo floor system have been used successfully for many years.

Whether the heating units are a circulating warm water inside tubes or a parallel series of electric wiring or matt system; these have used primarily traditionally with Portland cement terrazzo.

Some radiant heat systems can be used with epoxy terrazzo. In most cases, the epoxy terrazzo is bonded to the slab. Job conditions may dictate the use of epoxy membrane should be applied over the existing cracks only. However, in some cases, a complete coverage of the area receiving epoxy terrazzo may be necessary. Consult with the epoxy formulator prior to installation.

The elevation of the heating medium must be within a certain specified distance from the finished surface to achieve the greatest efficiency. Normally, this required distance is less than 2 inches.

The heating units must be embedded in the slab or under-bed, not in the terrazzo topping. Consult with the supplier of the epoxy terrazzo for recommendations for the underbed that is compatible with the terrazzo and will meet the demands of the job conditions.

The tubing should be elevated to the proper height with chairs to prevent disturbing the elevation during the under-bed concrete placement.

Regardless of what system of heating is being employed in the concrete or under-bed, the metal divider strips should not touch the heating elements. Depending on the elevation of the units, a maximum 1- inch depth divider strips may be required.

For hydroponic radiant systems, water temperatures must not exceed 100°. Temperatures should be raised or lowered slowly, commonly 1-degree F per hour to avoid thermal shock.

The system should be charged before the application of the terrazzo. If possible, the system should remain on and at a constant temperature during the application of the terrazzo and during the use of the building. Temperatures should not be allowed to flux.

Electric heating units with a series of wires may necessitate placing the under-bed in two layers. The first layer should be placed to the required height to allow the electrical contractor to place his heating mat system. It is essential that the terrazzo contractor bond the two under-bed layers together. If a long delay is anticipated between the placements of the two, it may be necessary to apply the second layer with a bonding agent on the second day.

It may be necessary for the electrical contractor to work over a hardened surface to test for short circuits or breaks both before and after the placement of the second layer. The thickness of **each layer must not be less than 1 1/4 inches**. Extreme care must be taken in the placement of the second concrete layer and the insertion of the divider strips to prevent damage to the heating mats.

The terrazzo topping along with the grinding, grouting, and polishing is performed as usual.

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