



BESHIELDING
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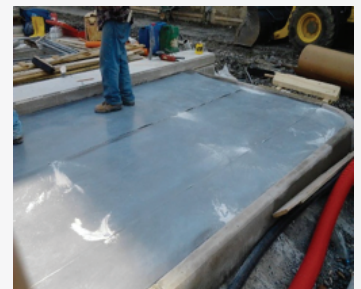
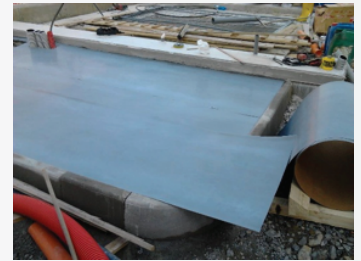
FLAT SHIELDING FOR LARGE SURFACES

Description of the problem

When it proves necessary to shield areas very close to the source, the use of ferromagnetic shields instead of conductive shields should be intensified. The use of grain-oriented materials — with high permeability and with thickness evaluated by calculation — can be an efficient solution. Here the layers of material are arranged according to the direction of the currents. The case presented shows the shielding of an office booth in a car wash station in Genoa, Italy, located above a high voltage cable line.

Solution

The figures show the different installation stages for the shielding composed of layers of high magnetic permeability shielding. The very simple installation is carried out starting with a rolled strip of ferromagnetic material that is cut to size on site. A few cm of overlapping between layers allows for ferromagnetic continuity.



Results

The first figure shows the magnetic induction levels at ground level in the absence of shielding. The second figure shows how the shielding expels the magnetic field by changing the trend in contour lines, ensuring compliance with the required 3 microT above the office booth (grey area).

