

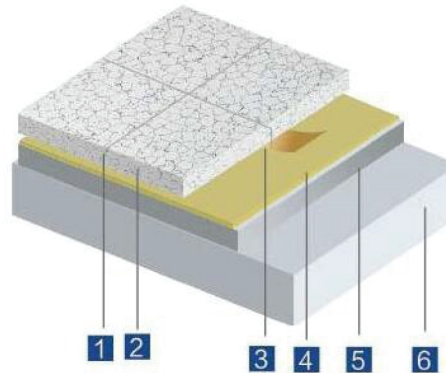
SD Veined Floor



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Glue-down Method with Conductive Adhesive

Cleaning the ground -> Self-leveling concrete
-> Drawing grid lines -> Laying copper strip
-> Applying conductive adhesive -> Laying vinyl tile
-> Opening V-shaped groove -> Laying welding rod
-> Welding trimming -> Surface cleaning & smoothing -> Performance detection



- 1 Welding Rod
- 2 SD Veined Vinyl Tile
- 3 Copper Strip
- 4 Conductive Adhesive
- 5 Self-leveling concrete
- 6 Base Ground

1. Materials, Equipment & Tools

- **SD Veined Vinyl Tile:** physical properties and appearance dimensions should meet standard NF EN 13 415-NF EN 1081 or standard NF EN 61-340-4-1 or ASTM F 150 NF PA 99. The resistance value of conductive tile should be 2.5×10^4 - $1.0 \times 10^6 \Omega$, the resistance value of the static dissipative tile should be 1.0×10^6 - $1.0 \times 10^9 \Omega$.
- **Conductive Adhesive:** should be water-soluble glue, the resistance value should be less than the resistance value of vinyl tile, the bonding strength should be greater than $3 \times 10^6 \text{N/M}^2$
- **Welding Rod:** should use uniform color, uniform outer diameter and flexible material.
- **Copper Strip:** the thickness should be not less than 0.025mm, the width should be 12mm or 15mm.
- The SD Veined vinyl tile should be stored in a ventilated and dry warehouse away from acids, alkalis and other corrosive substances. It should be lightly loaded and unloaded. It is strictly forbidden to hit hard, and to be exposed to outdoor sun and rain.
- Installation equipment (including tools): slotting machine, plastic welding torch, rubber boring head, cutter, ruler, brush, waxing machine, etc. Its specifications, performance and technical indicators should meet the construction process requirements.
- Installation Preparation
 - (1) Learn design and construction drawings and survey the construction site.
 - (2) Formulate construction plan, draw the grounding system diagram and ground grid layout.
 - (3) Prepare materials, equipment and tools according to the construction process requirements.
 - (4) When the area is larger than 200 square meters, demonstration laying should be carried out before the formal installation.

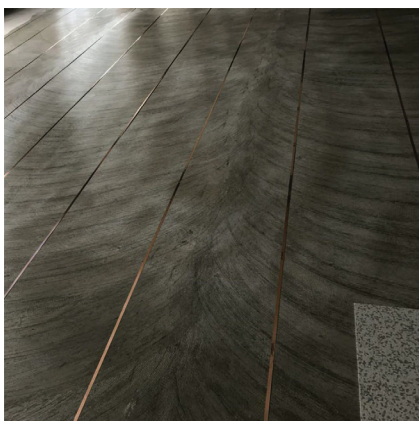
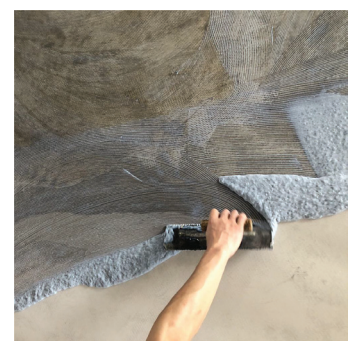
2. Installation Site Requirement

- Temperature of the installation site should be between 10 and 35 °C; the relative temperature and humidity should not exceed 75%; the ventilation should be good, other construction projects should have basically ended.
- When base ground is cement or terrazzo:
 - (1) Ground should be clean, and the paint, adhesive and other residues on the ground should be cleaned up.
 - (2) Ground should be level, check with a 2 meter ruler, the clearance should be less than 2mm. If there are irregularities or cracks, they must be filled.
 - (3) Ground should be dry, it should be waterproofed first.
 - (4) The surface layer should be hard and sand-free, and the mortar strength is recommended to use self-leveling concrete above the medium strength type.
- When the ground is already installed with wood floor, tile, plastic, etc, the original floor should be removed, and the residual adhesive on the ground should be completely removed. The newly poured ground should wait for the 28d curing period before proceeding to the next construction of the process.
- The installation site should be equipped with artificial lighting devices.
- Determine the outlet for earthing. When the area is within 100m², the outlet should be no less than one. For every 100m² increase of the area, 1-2 outlet for earthing should be added.
- Ground should be thoroughly cleaned before construction.No scum, dust or other dirt should be left on the ground.



3. Installation Process

- **Drawing Lines:** drawing the baseline and lines for the layout of copper strip. The copper strips are arranged along the medians of each tile and encircled around the edge of the room. Normally copper strip grid is 0.6×0.6m.
- **Laying Copper Strip:** copper strip should be laid based on the lines drawn. The cross-section of copper strip should be at the center of vinyl tile. The strip shall be laid flat, and the line connected to outlet for earthing should be left long enough.

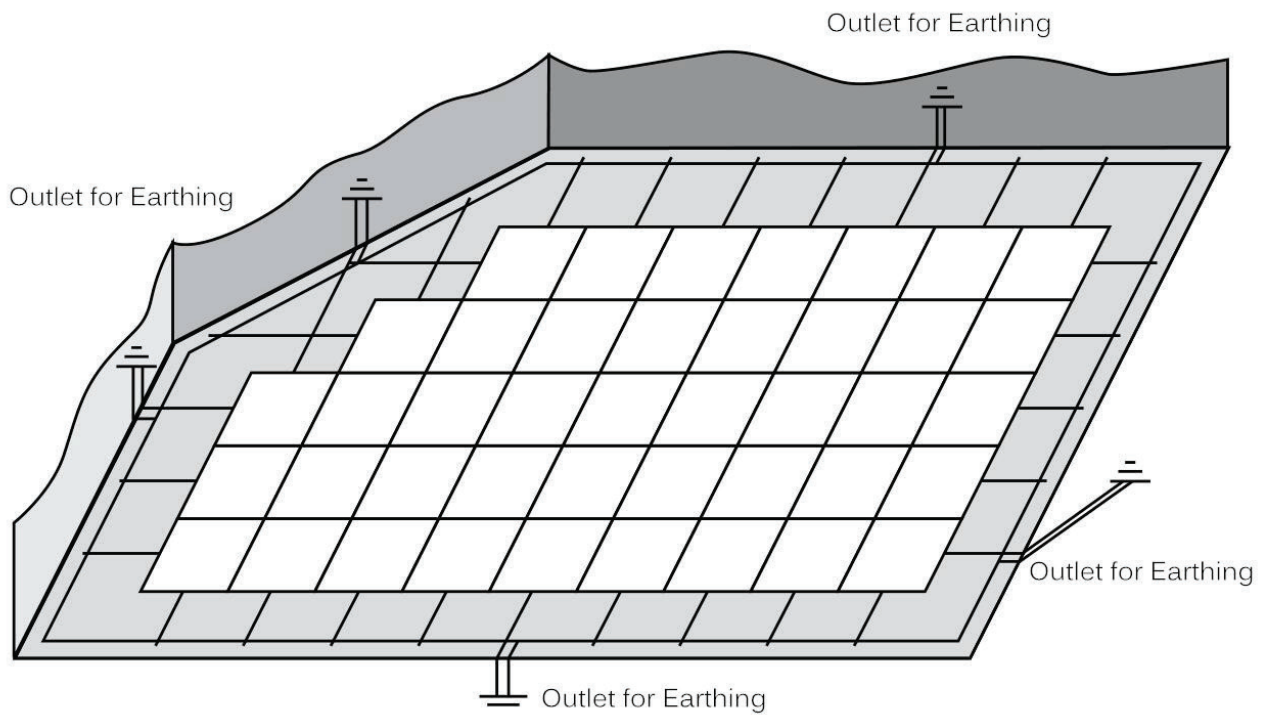


- **Applying Conductive Adhesive:** adhesive should be applied on the ground and coated strip. The coating should be uniform and comprehensive, adhesive should be dried naturally after applying.
- **Laying Vinyl Tile:** when adhesive is dried to the point where it is not sticky, laying should be started. Follow the baseline and start laying. There should be a 1-2mm gap between 2 tiles, and the width of gap should be the same. Use a rubber hammer to hit tile surface, and check the edge to ensure that the sticking is firm. Apply non-standard vinyl tile to the edge.

- **Leading Outlet for Earthing:** when the laying arrives earthing place, lead cooper strip out and connect to grounding terminal by soldering or crimping method.
- **Opening V-shaped Groove:** when all tiles have been laid successfully, the groove should be opened with a slotting machine along the seam of vinyl tiles. The groove line should be straight and uniform, and the groove width is preferably $3\pm 0.2\text{mm}$.



- **Laying Welding Rod:** apply plastic welding gun to the groove, to hot-weld rod to the tiles. The welding excess is flattened with knife, but the surface of the tile must not be scratched.
- **Surface Cleaning:** after the laying is completed, clean the floor and apply wax protection(if necessary).



The method is based on our long-standing experience and extensive testing. However, the actual application of the product is also related to the conditions of actual application and the method used, these are uncontrollable factors.