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A novel method of tiling cement floors without chipping the surface

Floor tiling with ceramic tiles, porcelain tiles, marble slabs or granite slabs is the present trend. Compared to cement, terrazzo, terra-cotta and wooden floors, which have to be polished at frequent intervals, tiled floors are durable and easier to maintain. Hence, in many newly constructed houses and commercial buildings the floors are tiled. In many existing houses and commercial buildings too, cement and terrazzo floors are being converted into tiled floors.

The traditional practice, when lying tiles on existing cement or terrazo floors, is to manually chip the surface with chisel and hammer to create sufficient roughness on the surface, so that the new layer of cement mortar will adhere well to the old surface. However, this practice is extremely inconvenient, because of the sound, the dust and the debris. This problem is compounded, if the process is carried out in a upper floor in a multi-storey building. Due to the vibrations created during the chipping process, cracks can develop in the floor and the adjacent walls, causing structural weaknesses. Since the process is manually carried out in a dusty environment, a uniform roughness cannot be created by this process.

The proposed novel method is clean and convenient. It consists of two stages. During the first the floor is dewaxed and cleaned using a wax stripping detergent. During the second stage the floor is roughened to a desired level of roughened to a desired level of roughness, by using a mixture of chemicals.

Since, wax is removed and the floor is uniformly roughened to the desired level, the adhesion off tile bonding material to the floor will be very good, resulting in high strength. The process is noiceless, clean, no dust or debris, no damage to the floor or walls and no inconvenience to the occupants and the neighbours. The wax stripping detergent used is a mixture of anionic and non-ionic surfactants and petroleum solvents. The roughening chemical used is a mixture of hydrochloric, sulphuric and phosphoric acids.