



FLOORING GOES



Great care was taken over choosing the installation products for the floors of this primary school: Mapei's Eco range.

Architectural designers consider hard-wearing floors to be particularly suitable for spacious places like offices, clinics and schools, due to how easy to clean and resistant they are. This is why linoleum was chosen to cover the floors of this recently built primary school in Cantù, a small town not far from Como. It was used for both the octagonal central hall, with three classrooms and the canteen leading of it, and the corridors leading through to the outside garden and utility rooms. A total of approximately 550 square metres of linoleum flooring were laid, chosen in two colours to distinguish the classrooms area and canteen from the communal parts (lounge, corridors and offices). Increasing attention to the quality and comfort of communal spaces (particularly those used by young children) and environmental protection meant that only low eco-impact products were chosen, starting with the bonding primers and adhesives for laying the floors, all supplied by

Mapei. So, after carrying out a careful inspection with a carbide hygrometer to check there was no damp in the screed (the humidity level must be no more than 2.5-3% for cement-based substrates), the substrate was prepared by cleaning it to get rid of any paint, wax or rust from the screed that might interfere with bonding. After completing this operation, ECO PRIM R* was applied, ideal for improving how levelling compounds bond to either absorbent or non-absorbent surfaces and for adjusting the absorption level of highly porous cement-based surfaces. This solvent-free primer is not inflammable and has a very low emission rate for volatile organic substances (VOC). This means it is not harmful to either the installers or the end-users of the places where it is installed. This product, like the rest referred to in this article (all from Mapei's Eco range) have been tested and certified by qualified international institutes, such as the German body TFI (Teppich Forschung Institut) and the American Carpet and Rug Institute (CRI).

Photo 1. Eco Prim R, ideal for improving how levelling compounds bond to all surfaces, was applied after cleaning the substrate to get rid of any paint, wax or rust from the screed. This primer, like all Mapei products used for installing the school floors, is low in emissions of volatile organic compounds (VOC) and is not harmful to either the installers or end-users.

Photos 2, 3 and 4. Ultraplan Eco was used to even out any differences in the thickness of the substrates. This is an



ultra-fast hardening self-levelling compound with low emission of volatile organic compounds (VOC). The photos show various stages in the process: the product is prepared for use by mixing it with water, before applying it to the substrate. 12 hours after applying the self-levelling compound, the surface is ready to have the floor installed.

Photo 5. The substrate was mechanically cleaned before applying the adhesive and linoleum sheets.

Controls carried out certify the extremely low emission rate of volatile organic substances and prove it has passed toxicity tests, a guarantee for both installers and end-users. ECO PRIM® can be applied to the substrate using either a brush or roller, and it must be left to dry properly for between 1-4 hours at room temperature and humidity levels, before applying the levelling compound. ULTRAPLAN ECO® was used the following day to even out any differences in the thickness of the substrates. This ultra-fast hardening self-levelling compound for thicknesses of 1-10 mm with low emission of volatile organic compounds (VOC) can only be used indoors and is applied by pump or flat trowel. Thanks to its incredible self-levelling properties, the product instantly gets rid of any imperfections that have formed, such as unevenness caused by trowel work. Smoothing by means of ULTRAPLAN ECO® is ideal for the installation of hard-wearing floors, as in this instance, or also textile, ceramic or wooden floors after 12 hours, although the length of time varies according to the thickness of the levelling compound, temperature or humidity level in the place where it is being applied. The substrate is mechanically cleaned before applying the adhesive or linoleum sheets. ULTRABOND ECO 540®, a harmless adhesive in water dispersion with low emission of volatile organic substances (VOC), specially designed for linoleum, was then used for bonding the flooring. ULTRABOND ECO 540®, which is easy to apply and sets quickly and safely, already has a hard, elastic film just 24 hours after hardening, so that it bonds well to all substrates. This adhesive is specially formulated for installing linoleum flooring in places where there is heavy foot traffic and wheelchairs and rollers are frequently in use,

Projects

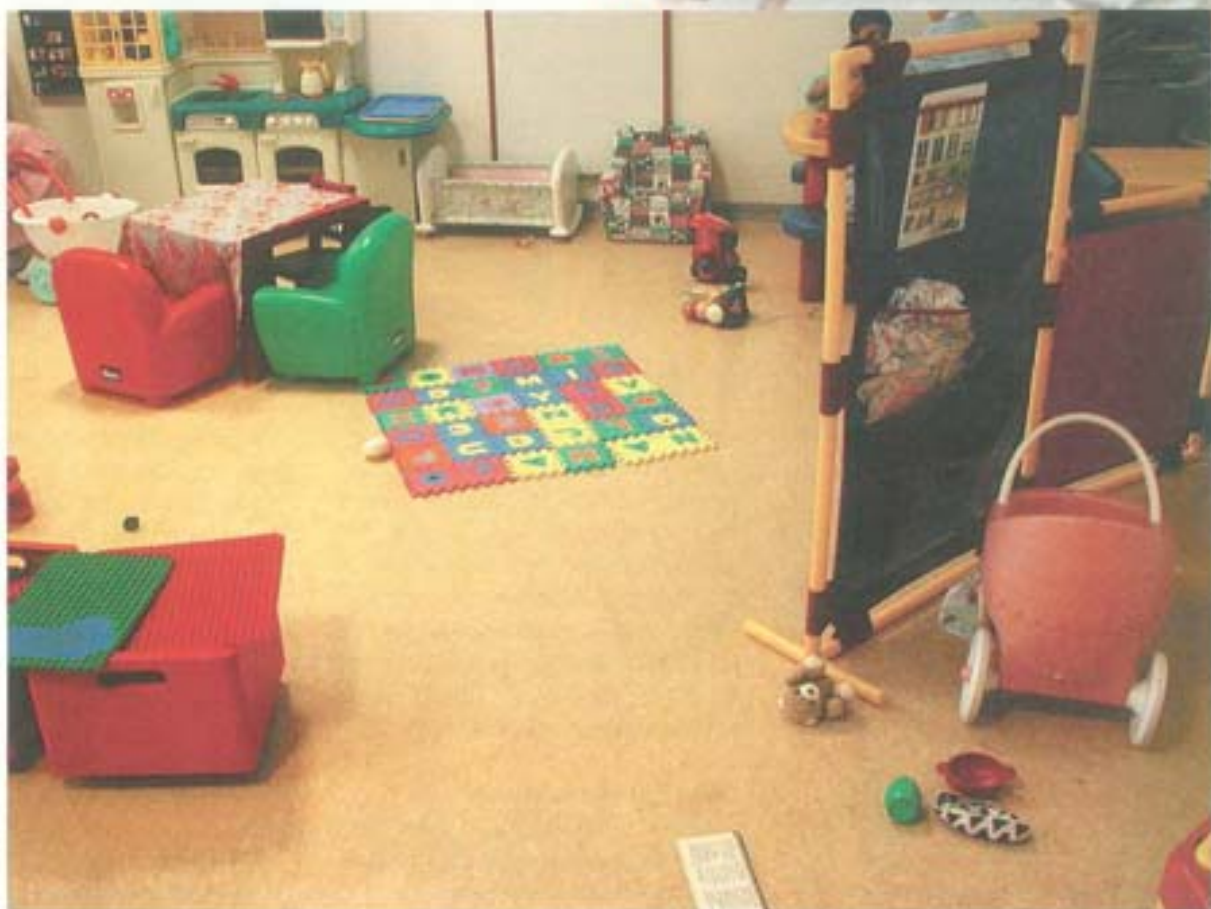


Photos 6, 7 and 8. Some stages in installing the linoleum floor: Ultrabond Eco 540, an adhesive in water dispersion with low emission of volatile organic compounds, was used for the bonding. The product is applied with a trowel and then the linoleum sheets is gradually installed.

such as hospitals. The coating used is Linosom Veneto by Tarkett Sommer. This exclusively natural anti-bacterial and anti-static product, resistant to minor burns and wheelchairs passing over it, comes in a thickness of 3.2 mm. After applying ULTRABOND ECO 540*, the linoleum sheets were carefully "massaged" with a roller, starting from the centre and moving outwards. This is to soak them properly and remove any air bubbles. The linoleum was then trimmed at the corners and edges to remove any excess material. Finally, the floors were finished off by heat-welding the joints and installing a semi-rigid layer of PVC.

*The products referred to in this article belong to the "Products for the installation of resilient, textile and wood floor and wall coverings" range. The technical charts are available from the "Mapei Global Infonet" Cd and at the internet site: www.mapei.com.

Eco Prim R: Neoprene primer in water dispersion with low emission of volatile organic compounds (VOC).
Ultraplan Eco: ultra-fast hardening (12 hours) self-levelling compound for thicknesses of 1-10 mm with low emission of volatile organic compounds (VOC).
Ultrabond Eco 540: adhesive in water dispersion with low emission of volatile organic compounds (VOC), specially formulated for linoleum flooring.



Photos 9, 10, 11 and 12. The linoleum sheets, chosen in two colours to distinguish the classrooms from the communal area, are carefully positioned and jointed. The linoleum is then trimmed to get rid of any excess material.

Photo 13. The different coloured linoleum sheets are perfectly jointed after installation.



TECHNICAL DATA

Scuola Materna Mirabello, Cantù (Como) - Italy
Works: installation of linoleum floors
Year: 2002
Architectural designer: Franco Borghi
Building firm: CBM Restauri, Arzago d'Adda (Milano)
Installer: Colombo Linoleum, Monza
Material installed: Linosom Veneto linoleum by Tarkett Sommer
Building Site Manager: Mr. Busà
Mapei Products: ECO PRIM R, ULTRAPLAN ECO, ULTRABOND ECO 540
Mapei Co-ordinator: Davide Ottolini