



MELZI edilizia e restauro

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FLOOR SYSTEMS:

Thick coating

(Solventless)

MULTILAYER EPOXY SYSTEMS

Information sheet

Layering of solvent-free two-component epoxy systems for protective coatings of interior floorings subject to pedestrian and wheeled vehicle traffic. Different levels of surface roughness (smooth, anti-slip) can be obtained, depending on the destination of use.

Checks on the substrate

The substrate must be clean, free of substances that hinder the adhesion of the system (waxes, silicones, oily traces), compact and very important dry. The presence of water in the flooring, without appropriate preliminary treatment, can cause the coating to detach; to check for the presence of humidity, always check using plastic sheets fixed to the substrate with adhesive tape, leaving them in place for at least 48 hours, then lift them up and measure using a hygrometer (the value must be <3% - within the green field limit).

New cement substrates must be cured for at least 30 days.

In the presence of previous coatings, check their adhesion to the substrate.

Substrate preparation

Loose parts and dusty residues must be removed. Lesions, hollows and irregularities in general must be properly treated (cement mortars, synthetic mortars, etc.). On absorbent substrates, apply **DUALENE EPX FTR** primer beforehand.

The surface must be mechanically roughened with intervention methods (sandblasting, shot-peening, milling, etc.) suitable for the existing conditions, always checking the adhesion of the epoxy system on the prepared support with specific preliminary tests.

Always respect any joints, as epoxy systems are rigid and may crack if the substrate moves.

Conditions

Operate at temperatures between 15-30°C, also of the substrate (at temperatures below 10°C, catalysis is not complete), and with R.H. < 80%. The use of solvent-free products in the summer season may compromise the final result due to the considerable reduction in pot-life; if the catalysed quantity must be reduced, it is essential to have a scale on site to respect the catalysis ratios.

During the winter season, as well as always working within the minimum application temperature, keep the components in a heated environment for a few hours; at low temperatures, the increase in viscosity can compromise the systems' workability.

When layering epoxy products work within 18-24 h (under normal conditions), in order not to compromise adhesion.

To clean the equipment, use ethyl alcohol or epoxy thinner immediately after use.

All two-component systems complete the curing process and consequently reach final performance in approx. 8 days under normal conditions.

With epoxy multilayer systems, coatings are produced with a low thickness of 2 layers and a high thickness of 3 layers. In addition to the layering, the final thickness is determined by the size of the quartz used for filler/sprinkling. It is possible to manage the systems by specific layering according to one's needs. Any solution must be tested for workability, adhesion and final performance

Multilayer low thickness - 2 layers (0.8-1.2 mm)Smooth**DUALENE EPX MS- Quartz 03 - DUALENE EPX SL SS**

-Adhesion layer

DUALENE EPX MS

Base product and hardener must be mixed thoroughly before use, using a mixer at low speed. To increase the filling capacity of the system add 20% by weight of quartz 03 mm, always under stirring. Pour the mixture onto the substrate and spread it evenly using a metal trowel.

On the fresh product, dust evenly with quartz of the same grain size used for the filler; when the layer has dried, and in any case within 24 h, proceed with suctioning the unfixed quartz and sanding (80-100 paper), with further suction.

Yield:

DUALENE EPX MS 0.7-0.8 kg/m²

Quartz (filler) 0.15-0.2 kg/m² - (sprinkling) approx. 3 kg/m²

-Finishing layer

DUALENE EPX SL SS

Base product and hardener must be mixed thoroughly before use, using a mixer at low speed. To increase the filling capacity of the system, add 10% by weight of quartz 03 mm (if less roughness is required, use quartz 015), always under stirring.

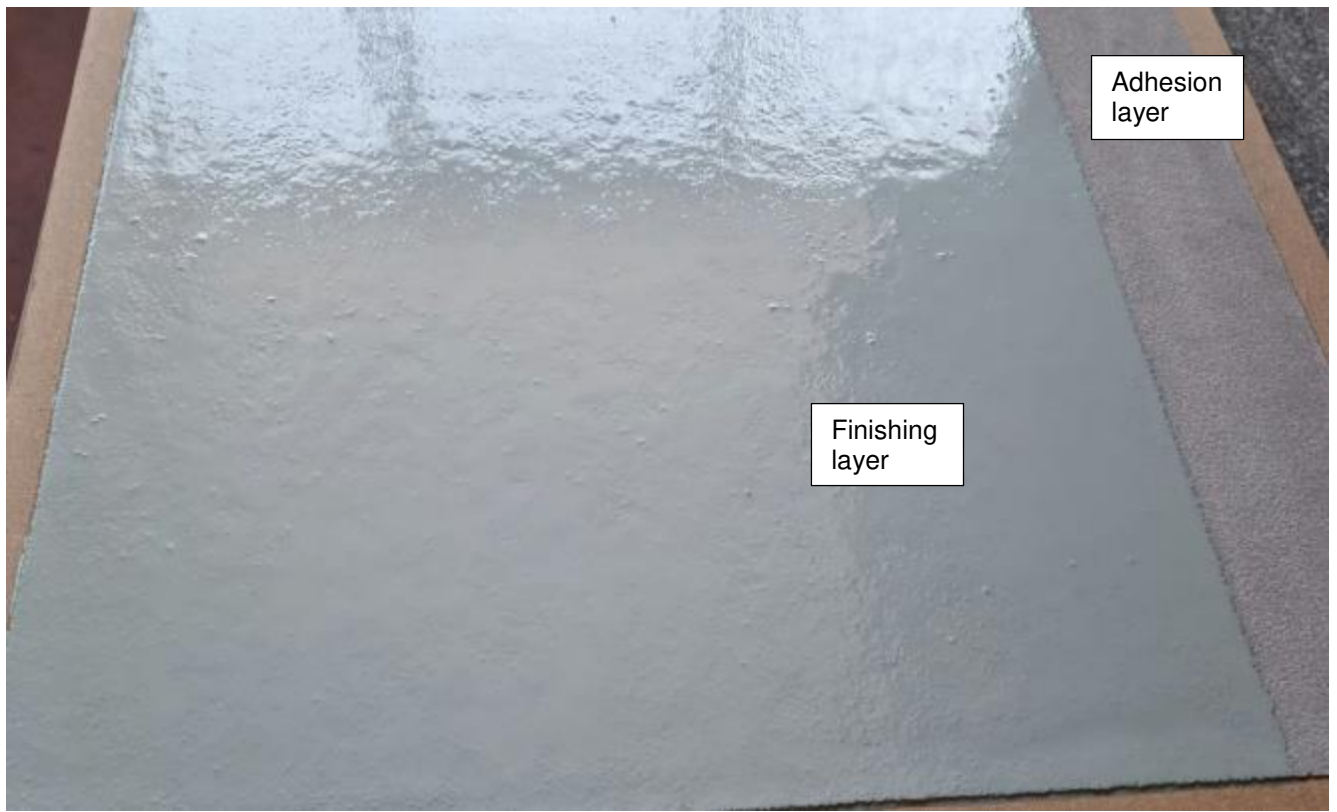
Apply the mixture using a medium-hair roller, or pour it onto the substrate by spreading it with a metal trowel, and then recoat the fresh layer with a shaved roller.

Yield:

DUALENE EPX SL SS 0.5 kg/m²

Quartz (filler) 0.05 kg/m²

To obtain a smoother surface, an additional layer of unfilled **DUALENE EPX SL SS** can be applied by roller.



Anti-skid (rough surfaces increase dirt pick-up)

DUALENE EPX MS- Quartz 03/05 - **DUALENE EPX SL SS**

-Adhesion layer

DUALENE EPX MS

Base product and hardener must be mixed thoroughly before use, using a mixer at low speed. To increase the filling capacity of the system add 20-30% by weight of 05 mm quartz, always under agitation. Pour the mixture onto the substrate and spread it evenly using a metal trowel.

On the fresh product, dust evenly with quartz of the same grain size used for the filler; when the layer has dried, and in any case within 24 h, proceed with suctioning off the unfixed quartz and sanding (80-100 paper), with further suction.

Yield:

DUALENE EPX MS 0.7-0.8 kg/m²

Quartz (filler) 0.2-0.3 kg/m² - (sprinkling) approx. 3 kg/m²

-finishing layer

DUALENE EPX SL SS

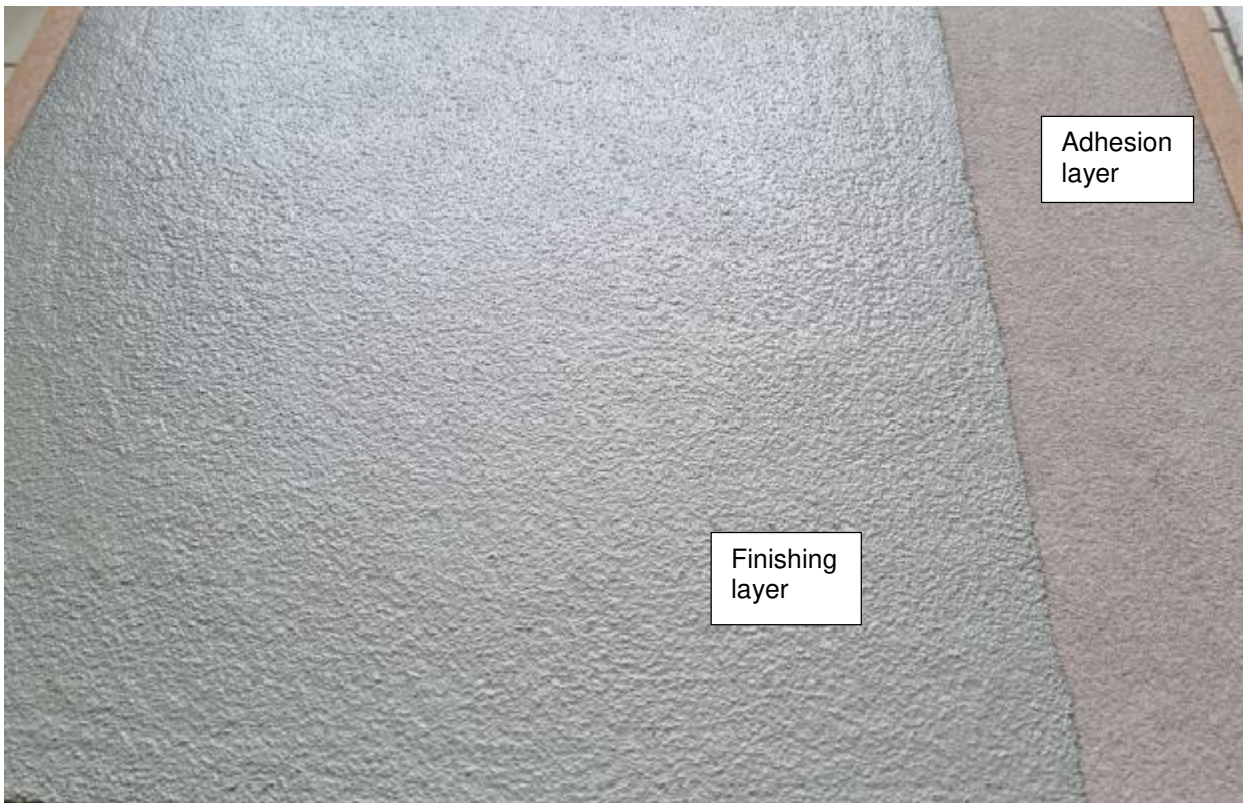
Base product and hardener must be mixed thoroughly before use, using a mixer at low speed. To increase the filling capacity of the system, add 10% by weight of quartz 03 mm, always under agitation.

Apply the mixture with a medium-hair roller, or pour it onto the substrate by spreading it with a metal trowel, and recoat the fresh layer with a shaved roller.

Consumption:

DUALENE EPX SL SS 0.6 kg/m²

Quartz (filler) 0.06 kg/m²





Multilayer high thickness - 3 layers (2-3 mm)

DUALENE EPX MS- Quartz 03/05 - DUALENE EPX SL SS

-Adhesion layer

DUALENE EPX MS

Base product and hardener must be mixed thoroughly before use, using a mixer at low speed. To increase the filling capacity of the system, add 30% by weight of 05 mm quartz, always under agitation. Pour the mixture onto the substrate and spread it evenly using a metal trowel.

On the fresh product, dust evenly with quartz of the same grain size used for the filler; when the layer has dried, and in any case within 24 h, proceed with suctioning the unfixed quartz and sanding (80-100 paper), with further suction.

Yield:

DUALENE EPX MS 0.9 kg/m²

Quartz (filler) 0.3 kg/m² - (sprinkling) approx. 3 kg/m²

-Middle layer

The intermediate layer determines the final surface roughness of the coating by varying the quartz size for filler and dusting.

Application instructions are given below without indicating the quartz size; if a smoother appearance is required use quartz 03, for a non-slip surface use quartz 05.

DUALENE EPX SL SS

Base product and hardener must be mixed thoroughly before use, using a mixer at low speed. To increase the filling capacity of the system, add 20% by weight of quartz, always under agitation. Pour the mixture onto the substrate and spread it evenly using a metal trowel.

On the fresh product, dust evenly with quartz of the same grain size used for the filler; when the layer has dried, and in any case within 24 h, proceed with suction of the unfixed quartz and sanding (80-100 paper), with further suction.

Yield:

DUALENE EPX SL SS 0.8 kg/m²

Quartz (filler) 0.2-0.3 kg/m² - (sprinkling) approx. 3 kg/m²

-finishing layer

DUALENE EPX SL SS

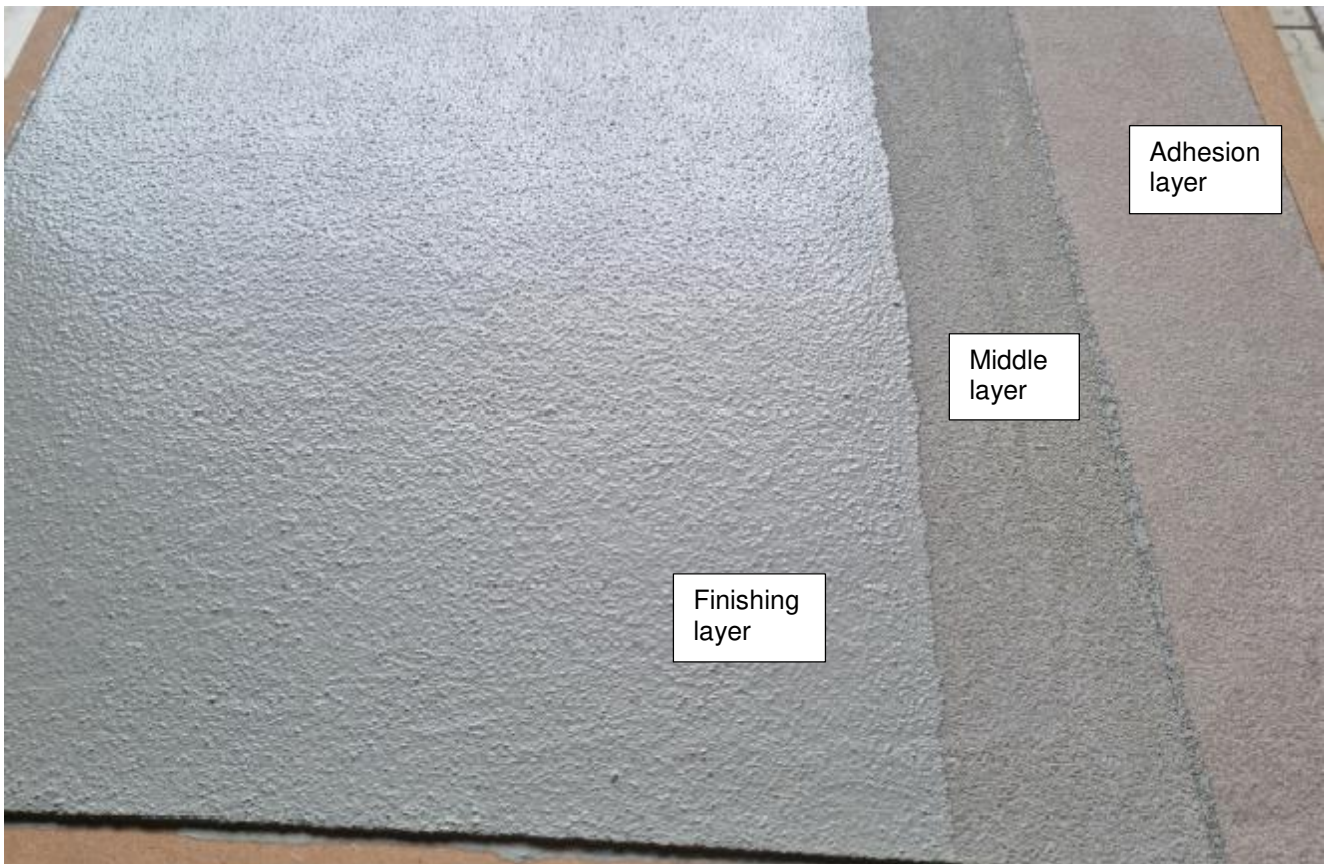
Base product and hardener must be mixed thoroughly before use, using a mixer at low speed. To increase the filling capacity of the system, add 10% by weight of quartz 03 mm (if less roughness is required, use quartz 015), always under stirring.

Apply the mixture by means of a medium-hair roller, or pour it on the substrate by spreading it with a metal trowel, passing the fresh layer with a shaved roller.

Yield: metal

DUALENE EPX SL SS 0.6 kg/m²

Quartz (filler) 0.06 kg/m²



Wait at least 24 hours (under normal conditions) after the last coat has been applied putting into service the floor.

Always refer to the technical data sheets of the products mentioned in this document.

VERSION 22/03. Product for professional use.
The user must assess whether the product is suitable for use as type and method of use, on which the final performance depends.
This sheet replaces and cancels the previous ones