

Impermeabilization of an historical building in Milan with polyurea

Application Story

Application

In this case, we describe the impermeabilization of the roof of an historical building in center of Milan – Italy. Montecatini Palace in Donegani square has been realized in 1936 by the Architect Giò Ponti.

The roof, after almost 80 years exposure to the external conditions and several types of waterproof systems applied, needed a new solution for solving problems of leakings inside. The characteristic of this roof was the presence of a complex system of hoses, little roofs, pillars, gutters, metal platforms, which would have caused many difficulties with old impermeabilization techniques, like bituminous membranes. In years many layers of different membranes have been applied, causing many difficulties in completely removing all of them.

Solution

The tech solution has been carried out by perfectly cleaning the surface with high pressure hydrowashing machine, than applying a Mapei primer and polyurea Purtop 1000, without the need of removing the old membranes. The Reactor E-XP2i has been selected as the best unit to apply polyurea in these conditions, at the level 15th in this building. No need to lift the unit at that floor, no need to modify the traffic at the street level. The Integrated Reactor by Graco has the sufficient power and pressure to apply the polyurea up to this level, and has the compact dimension allowing to be moved with a compact van, able to be parked inside the courtyard of this historical building.

Results

This job has been accomplished in 3 working days, despite the complexity of the roof with many obstacles and platforms. The Reactor Integrated, with 93 mt heated hoses, and the remote control, has been parked inside the building in a safe area, and controlled thanks to the remote display at the application point at 15th floor. With this feature, it is not needed an operator close to the machine, but everything can be controlled and adjusted by the operator, remotely.

The Applicator Ranghetti found the following features of the Integrated Reactor beneficial for their application:

- ✓ Accurate and reliable plural component system
- ✓ Ease of operation
- ✓ Ratio assurance
- ✓ Complete mobility, without need of electricity nor air
- ✓ Data log at the end
- ✓ Capability to spray polyurea on tall buildings



Specifications

END USER

PALACE MONTECATINI

Industry Market Sector

Roof impermeabilization

APPLICATION

Primer + Polyurea

Material Specifications

MAPEI PURTOP 1000

MAPEI PRIMER P



GRACO Equipment

Reactor E-XP2I

CONFIGURATION

Reactor E-XP2I with T2 feed system,
Graco AP Fusion guns with AR4242
mix chamber. Application temp:
55/65°C, pressure 160 bar.
Twistork Siphon drum agitator,
External temp: 30°C

APPLICATOR Details

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