

Apartment Block

City of Andoain, SPAIN

Built by Construcciones Moyua,
San Sebastian

Surface: White Carrara Marble

Product: STAIN-PROOF™

June 2007

Accredited Applicator: Jaime Redondo



The City

Located in the heart of the residential area of the city of Andoain in the Basque Region of Northern Spain, the 32 apartment building was constructed in May 2005.



The Project

Each apartment in the block has a balcony, finished in white crandalled Carrara marble, which had not been treated. This was causing 2 different, but related problems.

- 1) Rain water was penetrating into the marble, particularly in the joints where it could collect and sit for extended periods. Marble is a dense stone, but water will move freely through any untreated porous material, just more slowly through dense ones. In this case, the water was passing through the marble and into the structure of the

building, through walls and floors, leading to a serious damp problem inside the apartments.

- 2) The water traveling through the marble was causing pyrite (iron) deposits within the marble to oxidize (rust) and stain the marble.

Requirements

A Solution was required which would maintain the pure white colour of the Carrara marble, while at the same time preventing further entry of water into the stone and circulation of water within the stone. The solution also had to be long lasting and to stand up to future commercial cleaning and UV light.



Oxidation stains. Water circulating inside the marble was causing microscopic metal deposits within the stone to rust. The rust coloured water was then circulating through the material and running down the outside, leaving these brown vertical marks behind.

The Dry-Treat Solution

Dry-Treat STAIN-PROOF™ was applied to the marble, to create a deep water and oil repellent barrier within the marble. Only Dry-Treat's unique impregnating sealers are able to penetrate deep enough to prevent both entry of water into the marble and circulation of water through the material. STAIN-PROOF™ also forms a permanent chemical bond within the material without changing the colour or breathability of the material.

To date there have been no reports of further oxidation and the dampness in the apartments has dissipated. The STAIN-PROOF™ barrier has successfully prevented water from traveling from outside to inside through the porous marble and structural materials.