

DUBAI MALL

Dubai, United Arab Emirates



SYSTEM**ARDEX**
PREMIUM PERFORMANCE

INSTALLER:

ASCON Marble & Granite LLC
Plus Painting Works LLC

BUILDER:

Dutco Balfour Beatty LLC
Al Ghandi & Consolidated Contractors Company



ARCHITECT:

DP Architects PTE LTD

CHALLENGES:

- Largest shopping mall in the world
- Very heavy traffic requirements
- Fast track project
- Avoid cracking or staining of the 200,000 m² natural stone floor that was light in colour
- Work schedules of contractors

PROBLEMS:

Stretching over 1,114,800m² (12 million ft²) with a floor area of 548,110m² (5.9 million ft²), the Dubai Mall is one of the largest retail shopping malls in the world. Containing a mixture of urban design principles, this amazing structure contains more than 1000 stores and offers leisure area attractions including a shark tank, an Olympic size skating rink and theme park. To date, the mall contains more steel than the total amount used in the Eiffel Tower and 193,000m² of stone has been placed. Originally scheduled completion in 2006, the Dubai Mall opened in 2008.



SOLUTION:

Working with the ARDEX Singapore Representative, the specification written by DP Architects listed specific Ardex products by name, recommended Ardex qualified contractors for installation and all recommended testing to be completed for the project.

For this flooring installation the existing concrete was primed with Ardex **P51** Primer, this would seal the substrate and help ensure a strong bond. Ardex EP 2000 Epoxy Primer was used to prime and fill cracks in preparation to receive the Ardex **K 15** Self-Levelling Underlayment.

Because this was such a large floor installation, **K 15** Self-Levelling Underlayment was specified. **K 15** is ideal for large installations, because it can be pumped or poured into place making it easy to use. **K 15** is formulated with a special blend of polymers to prevent shrinkage and create a smooth, flat surface.

To ensure there would be no tile staining from moisture caused by vapour diffusion a layer of Ardex **WPM 002** Waterproofing Membrane was used. **WPM 002** is a strong, fast drying two-component waterproof membrane that is formulated with synthetic microfibers to increase strength and eliminate the need for a separate reinforcement mat. **WPM 002** has been designed to use with Ardex tile adhesives. It does not re-emulsify and accommodates normal building movement which eliminates steps that would be needed with competitors' products. **WPM 002** is fast drying and controls excess construction moisture in the subfloor, so it helped the crew move forward on the project at a steady pace.

Ardex **A 35** Screed was the next step in the Dubai Mall floor installation. **A 35** is a rapid setting and drying cement for floor screeds with a compressive strength of 40 N/mm² (5,800 psi) and can be applied bonded, unbonded or floating. It was developed with Ardex RapiDry Technology which allowed the installers to move onto the next step of the installation.

The final part of the installation included placing the natural stone tiles. Ardex **S 16** Natural Stone Adhesive was used to place the stones and then grout with Ardex **MG Grout. S 16** is the preferred adhesive when placing natural stone tiles in areas that are intermittently damp. This would further help prevent the staining of tiles in areas that can get wet, since staining is often associated with moisture issues. **MG Grout** was selected because of its Ardex RapiDry formulation, which allows it to dry internally preventing moisture from staining the natural stone. It is also suitable for areas that are intermittently wet, so it would not be affected by potential water spills from one of the many fountains in the mall.

The Dubai Mall had the largest single day retail mall opening with nearly 600 stores present on November 4th, 2008.

PROJECT REFERENCE - SYSTEM ARDEX

