

BurJuman Centre

Dubai, United Arab Emirates

TEAMS:

- ARDEX UK
- ARDEX Middle East

INSTALLERS:

- Al Habtoor Marble Co. - Dubai, United Arab Emirates
- Plus Screeding LLC - Dubai, United Arab Emirates

GENERAL CONTRACTOR:

- Al Ghurair Group - Dubai, United Arab Emirates

ARCHITECTS:

- Kohn Pedersen Fox (KPF) - London, UK
- Dar Al-Handasah - Dubai, United Arab Emirates

PRODUCT FEATURED:

- ARDEX A 35 *Rapid Setting and Drying Cement for Floor Screeds*
- ARDEX S 16™ *Natural Stone Adhesive*
- ARDEX MG *Grout*
- ARDEX K 15® *Self-Leveling Underlayment Concrete*

OTHER PRODUCTS:

- ARDEX P 51™ *Primer*
- ARDEX WPM 002 *Rapid Drying Two-Component Waterproofing Membrane*

CHALLENGES:

- Fast Turnaround, overnight installation
11 p.m. - 8 a.m. to receive foot traffic by 10 a.m.
- Large amount of traffic
- 24,000 m² (258,333 ft²)
- Replace the floor without disturbing other shops in the mall
- Existing screed and natural stone floor had to be removed

PROBLEM:

BurJuman opened in 1991 and is currently one of the oldest malls in the area; however it also offers office space and residential areas with access to metro station lines. Currently, it houses stores such as Tiffany & Co making it one of the most popular shopping destinations. Because of its popularity, when deciding to refurbish the cracked and stained natural stone flooring, the Al Ghurair Group wanted the work to be completed in 100-200 m² (1000-2000 ft²) sections at night with minimal disruptions to the stores. This gave the workers a daily window of 11 p.m. to 8 a.m. with an expectation of the floor needing to be ready for foot traffic each day by 10 a.m.

Originally built with poor quality screeds and adhesives with sub-standard installation practices; BurJuman Centre had not lived up to the original expectations of the luxury stores found inside this Dubai destination. With that in mind, when it was time to install a new floor system, ARDEX Middle East was called upon to provide a product solution utilizing the ARDEX Natural Stone System.

SOLUTION:

The specification was written by KPF Architects in London with assistance from the ARDEX UK Representative. To ensure the system would be installed properly, ARDEX provided training for the team of installers. Product training seminars are offered by each ARDEX branch to ensure the products are used properly and to introduce contractors to products which they may not be familiar with. ARDEX also provides on the jobsite training. When the installation began, an ARDEX Representative from Middle East and a Technical Representative from ARDEX UK were on site offering installation tips to further train the installation crew on ways to install the products to protect the surrounding areas.

Each night, the workers started by removing the old flooring down to the concrete making sure to remove all existing materials that could create a bond breaker for the new floor system. Once the concrete was prepared, a layer of ARDEX P 51 Primer was applied. Using ARDEX P 51 sealed the existing porous concrete and helped create a bond for the ARDEX K 15 that was being installed. ARDEX P 51 was well suited in this time sensitive situation, because it can dry in as little as one hour in a controlled environment.

Once the primer dried, the specification called for an underlayment of ARDEX K 15, an easy to use, self-leveling underlayment that can be poured or pumped into placed and can be installed in thicknesses ranging from 5 to 35mm neat. Because ARDEX K 15 is a fast-track product, this allowed the flooring installation to continue in only 16 hours.

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Once the ARDEX K 15 sufficiently cured a layer of ARDEX WPM 002 was applied. ARDEX 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. Because WPM 002 has been designed to use with ARDEX tile adhesives it does not re-emulsify and accommodates normal building movement. ARDEX WPM 002 eliminated steps typically associated with competitors' products because it is a fast-drying product and controls excess construction moisture in the subfloor, so it helped the crew stay on schedule with the project.

ARDEX A 35 was the next step in the BurJuman floor refurbishment. ARDEX A 35 is a rapid-setting and drying cement floor screed with a compressive strength of 40 N/mm² (5,800 psi) and can be applied as bonded, unbonded or floating. Because ARDEX A 35 was developed with ARDEX Rapid Dry Technology, the installers could move to the next step of the installation quickly.

Finally, a combination of ARDEX S 16 Stone Adhesive and ARDEX MG Grout was used to place the natural stone tiles. ARDEX S 16 was specified, not only because of its rapid drying properties, but also because it can be used in areas that are intermittently damp and was specifically designed for use with natural stone systems. This would help control the staining caused by many tile adhesives associated with moisture problems. This allowed the contractors to grout the tile with ARDEX MG after only a two hour drying period. ARDEX MG Grout is strong enough for foot traffic in just 1½ hours and was specifically developed to use with natural stone systems.

Working with ARDEX UK, KPF Architects of London was able to specify a system that would get the refurbishment done properly and on time, meeting the required criteria set by the Al Ghurair Group with a comprehensive 10-Year warranty. In 2005, After the installation, BurJuman won the Retail ME Mall of the year.

**For additional information, please contact
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