FULL FRONTAL TILE & STONE EXPO 2009

TRAINING COURSE

DESIGN AND SPECIFICATION OF TILED HIGH RISE FACADES IN HOT CLIMATES

GENERAL DESCRIPTION

The use of ceramic tile is not only a question of culture and tradition in a country like Brazil. It is also the number one choice when a combination of durability and aesthetics are desired. Thousand of tiled façades and floors for both residential and commercial buildings are a testimonial to the adequacy of tiling in hot climates and humid weather conditions.

In spite of decades of significant use of tiles, many issues still arise when installation technology is considered. The use of tiles in modern high rise structures has highlighted a number of issues in recent years, where much greater attention must be given to the detailed design and specification of the tiling. Projects owners and managers increasingly understand that while quality materials and good workmanship are important, they are insufficient to reach the required level of guaranteed performance. Engineered design plays a fundamental role in this context, enabling the development of more complex detailing and specifications.

This course is focused on understanding the criteria and the design detailing that is necessary to improve the quality and durability of adhered tiling. It is recommended to professionals who have to deal with specification and installation of tiles. Typical examples of defective tiling work will be considered, as a background to establishing design criteria that avoid or overcome problems. An understanding of defect mechanisms will be demonstrated to be a key issue to improve design. Both reinforcements and movement joints will be detailed, specified and practical criteria to locate them discussed. Reinforcements specially required to avoid crack migration from concrete and masonry substrates into the mortar bed and grout will be presented.

The course will use actual cases studies to discuss the assembly of appropriate tile substrate, including criteria on how to specify mortar bed and screed, adhesives and grouts, and joint sealants for several practical situations. Australian Standard AS 3958 and other international standards criteria will be take into consideration.

PROGRAM CONTENT

Tile architecture and construction in hot weather

Past and present of tiling in Brazil

Why ceramic tile is still a revolutionary material

Use limitations of our time

Future of ceramic tile and ventilated facades

Typology and properties of tiles for building projects

Properties and selection of tiles for façades

Properties and selection of tiles for floor

Common defects: design, material and installations problems

Common façade defects

Case studies on façade pathology

Common floor tiling defects

Case studies on floor tiling pathology

Load bearing backgrounds for tilling

Concrete and masonry tolerances and surface preparation

Screed and mortar bed construction and tolerances

Installing reinforcements and joints in screeds and renders

Understanding how to design tiling to accept building movements

Movements in concrete and masonry

Temperature and moisture movements

Australian and Brazil standards controversy

Specification and selection of adhesives and grouts

Designing of movement joints

Typical detailing for façade and floor

Ceramic tile Installation: engineering and skill

Guidelines on how to avoid common mistakes

Logistics and planning in the job site

Tiling a high rise building façade and garage floor

Tiling a shopping centre

LECTURER

Jonas Silvestre Medeiros, civil engineer**, MSc** in Structural Masonry and **PhD** in Building Construction. Formerly Professor at Polytechnic School of the University of Sao Paulo in Brazil. Façade engineer designer and consultant since 1990. Head of INOVATEC Associated Consultants Ltd.

TO WHOM IS THE SEMINAR RECOMMENDED

This seminar was specially prepared for architects, engineers, other professionals and students who deal with tiles and tiling on a daily basis, or are involved with the design and specification of major tiling works.

The Brazilian experience may offer another view on how to creatively face practical problems. Architects, students and builders are also welcome to discuss theoretical and practical aspects.

Class will not exceed 30 participants.

DATES, LOCATIONS AND DURATION

21st August 2009
From 10:00 am to 5:00 pm (Lunch 1.00 pm – 2.00 pm)

Seminar room Hall 5, Sydney Convention and Exhibition Centre
Darling Harbour, Sydney

6 hours of presentation, where interactive questions and answers are encouraged, with a long lunch break to enable the class to talk to adhesive manufacturers, tile merchants and suppliers of ancillary products such as movement joints

INCLUDED IN THE PROGRAM

Printed copy of presentation
PDF file on CD
Lunch and other refreshments
Participation certificate

INVESTMENT

$A 880.00 (incl. GST)