

Job Reference

DAR EL SALAM HOSPITAL (HERMIL)

Project:

Renovation of Dar El Salm Hospital using the MBrace FRP System

Client:

Ministry of Health and Population

Scope of Project:

4000 LM

Designers & Consultant:

GS Consultant

Main Contractor:

Arab Contractor – Cairo Branch

Applicator:

Arab Contractor – Bridge Sector – Repair unit

Year Completed:

2010

Products/system used:

MBrace® FRP System











Project description:

Dar El Salam Hospital (Hermail) consists of 5 floors above ground and a basement. It was created with a capacity of 174 beds at a cost of 185 million pounds and stopped working since 3 years because of its violation of the permits and converted the basement which was designed as a parking area to a services area for the hospital as a kitchen and laundry facilities and a pharmacy.

Challenge:

The major structural problems of the Hospital originate from tensile stresses which occur at different areas on the building due to the usage change of each floor than which it was designed before.

force compression forces tension forces

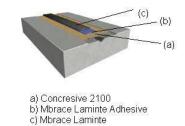
Solution:

The MBrace FRP Composite Strengthening system is the Ideal solution for this case as it's provide a high tensile strength and excellent for supplemental flexural and shear reinforcement of concrete slabs and beams.



System build-up:

Product	Quantity
Concresive 2100	10 ton
Mbrace Laminte adhesive	1400 Kg
Mbrace Laminte 50x1.2	4000 LM











Mbrace Features and Benefits:

- An increase in load-bearing capacity (e.g. in structural conversion, following a change in load capacity)
- A reduced deflection due to serviceability/ working loads (increase in rigidity/stiffness)
- An increase in structure fatigue strength
- An ability to limit or assist in crack control (increase in durability from chlorides and freeze/thaw)
- An exact amount of reinforcement to be calculated and placed in relation to the performance required or the flow of stress
- Less and faster maintenance, thereby reducing long-term, ongoing costs

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