



NBCC Auditorium

Kolkata (India)

CUSTOMER

Ahluwalia Const. India Ltd

SECTOR

Building Construction

DATE

2019-2020

PRODUCTS

- Nitomortar S & Nitoprime 25
- Lokfix TR 8.8 grade M16 x 400, M16 x 250, M16 x 550
- Lokfix E-75, Nitobond EP Standard
- Nitobond VF & Conbextra EP10

THE PROJECT

The NBCC auditorium is a 2,400 seater auditorium built under the PWD, West Bengal. NBCC is the PMC while Ahluwalia Contracts executed the job.

Initially the auditorium was designed to accommodate 1,800 seats, but later it was decided to increase its capacity by an additional 33%. In re-designing the structure, the engineers found that it was not capable of bearing the additional dead load. The structural consultant had to strengthen the seven core walls to increase their structural load carrying capacity.

THE SOLUTION

To strengthen the walls a system of steel plate jacketing was designed. As a world-leading solution provider for structural strengthening, Fosroc proposed the ideal products for retrofitting of the shear walls of the auditorium incorporating Nitomortar-S, Nitoprime-25, various Lokfix TR 8.8 grade steel bars, Lokfix-E-75 epoxy resin anchor, Nitobond EP Standard, Nitocote VF and Conbextra EP 10, with steel plate of various sizes and thickness.

THE BENEFITS

Fosroc is a single point solution provider of all product segments, including all products used in the repair methodology of the NBCC Auditorium.

The confinement of the loadbearing walls with steel plates could be undertaken with relatively minor impact on the overall structure, meaning no additional foundation work was required. The installation was faster and less labour intensive than traditional concreting work, ultimately making the project more economic. Lokfix E75 epoxy resin has excellent open-time allowing accurate positioning of reinforcement, but it is able to take load within a few hours, meaning works can progress rapidly.

The increased capacity of the auditorium ensured more people can visit the venue and creates greater revenue for the owner. Fosroc solutions ensured the delivery of this project on time and in scope.



Grinding Process



Nitomortar S Application



Scanning & Reinforcement position marking