Anticarbonation Coating for Car Parking at Sir Hurkisondas Nurrotumdas Hospital and Research Centre (HNHRC), Mumbai

A Case Study
Anti-Carbonation Coating for Car parking at HNHRC, Mumbai

**Project**
Sir Hurkisondas Nurrotumdas Hospital and Research Centre, Mumbai

**Project Requirements**
Sir Hurkisondas Nurrotumdas Hospital and Research Centre (HNHRC) is a renowned institution in South Mumbai, having rendered quality healthcare to the society for more than 85 years.

As an extension to the current facilities for converting it into one of world’s leading healthcare institutions, a brand new 35 storey tower is being constructed. This facility will house 300+ cars in 4 basements parking which are constructed by excavating 12m into the ground and for this parking space they had below requirements:

- High performance anti–carbonation coating system to protect the Reinforced Concrete elements from CO2 penetration.
- Certification from reputed institute for required Carbon diffusion resistance.
- Elastomeric coating system having crack bridging abilities for accommodating the movement of structure.
- Low VOC content, nonhazardous & non–flammable.
- Possible to tint at site to meet exact color requirement for aesthetic purpose.
- DFT Measurements by Ultrasonic gauge as per ASTM D6132–08 or ISO–1997 (Required 200 micron DFT)

**Sika Solution**
Sika India Pvt. Ltd. suggested use of **Sikagard®–550 W Elastic**, a coating based on UV–curing acrylic dispersion with excellent crack–bridging properties.

The system consist of substrate preparation with mortar using **Sika® Latex**, application of single coat of **Sikagard®–551 S Elastic Primer** (consumption of 200g/m²) and two coats of **Sikagard®–550 W Elastic** (consumption of 275 g/m² per coat) with high performance airless spray equipment from Graco for uniform thickness achievement.

**Sika Products**
- Sikagard®–551 S Elastic Primer
- Sikagard®–550 W Elastic
- Sika® Latex

**Project Participants**
- **Client** – Reliance Industries Limited
- **Applicator`s** – Industrial Construction & Contractors
  - Uday and Narendra Civil Engineers
- **Approximate Area** – 100000 Square meters
Mixing of Product

Graco Mixing Machine

Over Head Application

Airless Gun

Finished Basement Level 1

Finished Basement Level 2