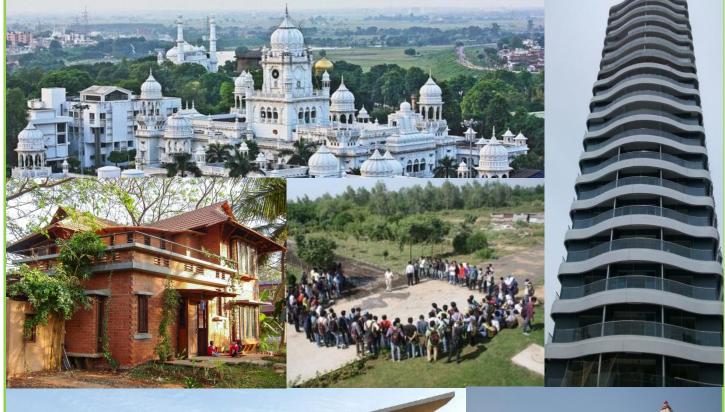


# **Institutional Business**

Application Case History ACH - Vol. IV





**ZYC©SIL** makes a Centurian Building

Protective, Penetratative & Permanent!









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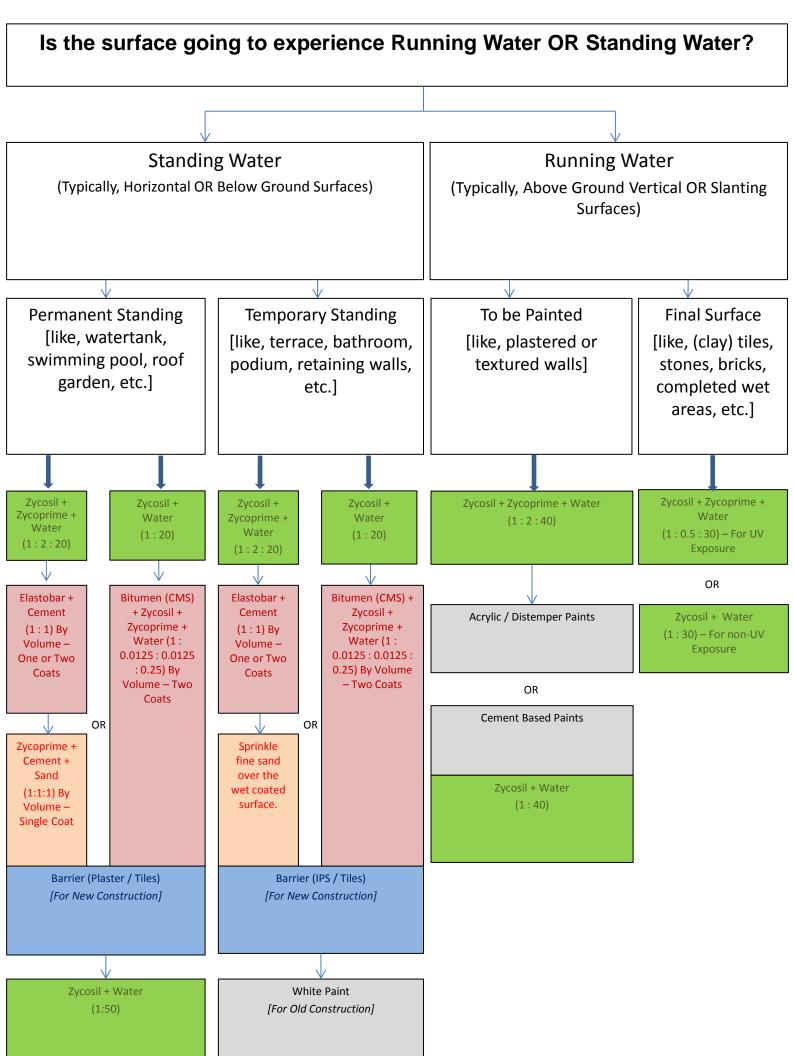


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# **Selection Guidelines for Waterproofing System**











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### A first of its kind unique small city project at Ghaziabad

# **The Challenge**

Wave City is a first of its kind project that personifies the concept of creating a city with infrastructure and facilities that extends much beyond a regular housing society. It is one of India's Smart Cities, constructed by world renowned AECOM as Town planner and Landscape designer.

The project has extensive use of sandstone covering huge surface area, which were prone to aesthetic deterioration as a result of fungus

growth.



Zycosil+, our organosilane nano-reactive penetrant was introduced and presented to the deciding authorities through a table-top demonstration and subsequently by carrying out a trial patch at his site.

Once fully convinced after through testing of the trial patch done at site, massive area was offered to us for carrying out Silane treatment. Business associate of Zydex carried out the complete job in the specified time limit with his team of professional applicators.

The treatment ensured that there will be no absorption of water by the sand stones, thus, negating the possibilities of fungus formation during rains.



#### **Project Details:**

Name: Wave City

Specialty Coatings, New Delhi Associate: Job Quantum: 1,00,000 ft<sup>2</sup> Sandstone surfaces

Products: Zycosil+ / Nano Silicon Period: December 2014





#### Eliminates:

- Dampness
- Seepage
- Carbonation
- **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

- Efflorescence
- Dust Accumulation











### Monument

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### King George's Medical University at Lucknow

# **The Challenge**

The Kind George's Medical College is an old monumental structure in the city of lucknow, also serving as one of the premium medical educational institutions. It is a structure having an age of more than 100 years. The Vice Chancellor's office section was facing water ingress from the roof and they were looking for a reliable and dependable technology to fix it.



#### **Project Details:**

Name: VC's Office K.G. Medical University
Associate: Aqua Shield Executors, Lucknow
Job Quantum: 5,350 ft² Horizontal Roof Terrace
Products: Zycosil+ / Zycoprime+ / Elastobar
Period: January 2015





Zycosil+ was introduced and presented to the engineers through table-top demonstration while citing previous job references.

After successful evaluation of the product, they decided to use our technology for treatment of the proposed site. The roof was a standard IPS with grooving to form a matt design. The surface was thoroughly wire brushed to take out all traces of fungus & deposits. After treatment of the surface with Zycosil+ Zycoprime+ & Solution, cementitious elastomeric coat was applied on the entire surface to act as a membrane with Elastobar, becoming as the primary barrier to rain water ingress. And the Zycosil+ treated surface standing as the second line of defense. This ensures a long lasting and mechanism against structural deterioration caused by water.



- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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### A G+4 residential project of Rupayan Construction, Kolkata

# **The Challenge**

Rupayan Construction Pvt. Ltd. is engaged in value added real estate business for a long time. Operating since 1993 they have several successfully completed decent projects in their sleeve.

In this ongoing project they were facing problems to efflorescence in the interior as well as exterior walls of the completed structures. Suitable solution to the problem was sought after.



### **Project Details:**

Name: Su Casa Wood

Associates: Shri Govardhandhari, Kolkata Job Quantum: 10,00,000 ft² Vertical Walls

Products: DryCoat / Zycoplug

Period: March 2015





DryCoat was introduced and presented to the builder by conducting a table-top demonstration as well as an on-site mock-up.

After successful evaluation of the product performance for more than 2 months, they decided to use DryCoat for treatment of the vertical walls of the entire project. Not only did they decided to opt for treatment of the exterior walls, but the interiors shall also be treated with this organosilane technology. Considering the simplicity of application, the builder decided to apply it with the help of their own in-house manpower, which resulted in reduction in final cost.



- Dampness
- SeepageCarbonation
- Paint Peeling
- Fungal Growth
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete











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### Swaminarayan Vidhyapith at Anand

# **The Challenge**

The Swaminarayan Vidhyapith at Karamsad (Anand) is a magnificent academic institution providing service to the community. This english medium complex also has hostels for the students, providing them facility to pursue their academics while being a resident within its premises. One of the girls hostel building had issue of water seepage from an overhead tank.



#### **Project Details:**

Name: Swaminarayan Vidhyapith Associate: Nisa Enterprises, Vadodara Job Quantum: 6,000 ft<sup>2</sup> Water Tank and Verticals

Zycosil+ / Zycoprime+ Products: Period: December 2014





Zycosil+ was introduced and presented to the authorities by conducting an demonstration by our Business Associate.

The contract was awarded after proper evaluation of the technology. Internals of the overhead water tank was treated with organosilane nano-chemical in order to make it seepage resistant.

Additionally, verticals walls of that hostel with Zycosil+ structure was treated technology in order to prevent ingression of water in the form of seepage and/or dampness during rainy season.



- **Dampness**
- Seepage
- **Fungal Growth**
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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## A Residential Bungalow in Thrissur District of Kerala

# **The Challenge**

Through a reference from Ar.Iqbal, an upcoming residential bungalow owner, Mr.Abdul Nazar, was approached. The state of Kerala sees a very high rainfall and earthen (mangalorean) tiles are extremely susceptible to fungus development in this region. This regional climate makes the architects to design extended sloping roofs in order to protect any structure from water. Yet due to extensive rainfall the concrete walls are always prone to get infected by fungus.





Zycosil+, our patented water soluble organosilane nano-reactive technology was introduced and presented to the architect through table-top demonstration.

After successful comparative evaluation of the product technology, Ar.Iqbal had opted to use Zycosil+ for waterproofing of the exterior vertical plastered walls and the earthen (mangalorean) tile roofing in this project.

This was successfully carried out by the trained applicators of our nearest business associate to entire satisfaction of the customer and the architect.

### **Project Details:**

Name: Bungalow of Mr. Abdul Nazar

Associate: Ecoshield, Thrissur

Job Quantum: 5,000 ft<sup>2</sup> Wall Plaster & Roof Tiles

Products: Zycosil+

Period: December 2014





- Dampness
- Seepage
- Carbonation
- Fungal Growth
- Rebar CorrosionAlkali Silica Reaction
- Aikaii Silica Reactio

- Efflorescence
- Dust Accumulation











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## Residential project of a New Developer at Bengaluru

# **The Challenge**

A new real estate developer at Bengaluru, M/s.Naveen Construction, were exploring various technologies for a small residential apartment project.

The concept of penetrative waterproofing was completely new to them as compared to the existing membrane technologies.



#### **Project Details:**

Name: Naveen Apartments

Associate: Gowri Agencies, Bangalore

Job Quantum: 10,000 ft<sup>2</sup> Horizontal Roof Terrace

Products: Zycosil+ / Elastobar

Period: July 2014





Zycosil+ was introduced and presented to the builder by conducting a table-top demo followed by an on-site mock-up.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of their proposed roof terrace. Following Zycosil+ treatment, the terrace was covered with modified co-polymer based cementitious elastomeric membrane, created with Elastobar.

The job was carried out to customer's complete satisfaction, by trained technicians of our authorized business associate.



- Dampness
- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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### An innovative developer's project at Cochin

# **The Challenge**

Good Earth is an innovative developer at Cochin. engaged with bringing together like minded people with a common vision of building a sustainable future. Reflections is a tropical high rise from Good Earth with 44 apartment houses on a ground plus 11 storied structure. In Kerala's high rainfall region protection of the concrete from water ingress is a common concern.



#### **Project Details:**

Reflections (By Good Earth) Name: Associates: Unipro Enterprises LLP, Cochin

Job Quantum: 18,200 ft<sup>2</sup> Vertical Walls Zycosil+ / Zycoprime+ Products:

Period: January 2015





Zycosil+ was introduced and presented to the builder by conducting а demonstration. The developer was already facing problems related to dampness and efflorescence from the already built structure.

The concept of vertical wall waterproofing being completely new for the builder, they performance evaluated the product thoroughly. Upon satisfaction, they decided to use Zycosil+ for treatment of the entire vertical walls of this project. The job was meticulously carried out by professional applicator's of our local business associate at Cochin.



- **Dampness**
- Seepage
- Carbonation
- Paint Peeling
- **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete











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### A residential private bungalow at Pathanamthitta, Kerala

# **The Challenge**

A residential private bungalow was getting constructed at Pathanamthitta District of Kerala. The structure was being designed by a wellknown architect of the state, Mr. Kunjan Garg. Based on his past experience with Zydex technologies, he decided to once again go for Zycosil+ organosilane technology.



The concept of vertical wall waterproofing being completely new for the architect, he had already tried it in his previous project with positive results. This ongoing project was largely comprising of plastered vertical walls as well as stone cladding at sections.

The job was successfully carried out by trained applicator team of M/s.Roofex Engineers. It built further confidence of the architect on the product technology as well as the distribution and application support system developed by Zydex.



#### **Project Details:**

Name: Residential Bungalow at Othara Associates: Roofex Engineers, Cochin Job Quantum: 21,200 ft<sup>2</sup> Vertical Walls Zycosil+ / Zycoprime+ Products:

Period: January 2015



- Seepage
- Carbonation
- Paint Peeling
- **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete













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### Muthoot – A private sector bank group's property in Cochin

# **The Challenge**

The Muthoot Management Academy Thrippunithura, Cochin was facing major problems due to ingress of water causing seepage and dampness below slab level of existing toilets, roof and sub shades.

All the conventional technologies required complete dismantling of the tiling / plaster in order to address the issue.



### **Project Details:**

Name: Muthoot Management Academy Associate: Unipro Enterprises LLP, Cochin Job Quantum: 110 liters of Silane for full Building

Products: Zycosil+ / Zycoprime+ Period: September 2014







Zycosil+ was introduced and presented to the authorities by conducting an demonstration. As the problem was limited to seepage and dampness they were advised to correct the problem by only flooding of the toilets and roof with Zycosil Solution without any need of dismantling the existing claddings from the slab.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of their proposed areas. The entire building affected zones were treated with Zydex organosilane consuming approx. 110 liters of Zycosil+. This resulted in major savings in terms of dismantling cost of the old structure and successfully resolving the issue.



#### Eliminates:

- **Dampness**
- Seepage
- **Fungal Growth**
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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## Multi-tower apartment project in Kolkata suburbs

# **The Challenge**

A real estate developer, M. K. & Sons, from Kolkata was in the course of developing a property in the suburbs of the metropolitan city. The construction while in the process was faced major problems already with efflorescence. The soil of the bricks or source of sand or possibly the quality of water had resulted in deposited salts within the structure which was oozing out when coming in contact with water in the exterior as well as interiors.





Zycosil+ was introduced and presented to the conducting table-top а demonstration as well as an on-site mock-up.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of the vertical walls on both interior as well as exterior. Considering the simplicity of application, the builder trained their internal manpower to carry out the application job, which further resulted in reduction in total cost of the project.

#### **Project Details:**

Panchsheel Vatika Name:

Associates: Shri Govardhandhari, Kolkata Job Quantum: 50,000 ft<sup>2</sup> Walls (Interior/Exterior)

Zycosil+ / Zycoprime+ Products:

Period: May 2015





- **Dampness**
- Seepage
- Carbonation Paint Peeling
- **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete











## Monument

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### A University Building at Kolkata

# **The Challenge**

An old university building in Kolkata was facing problems of efflorescence and seepage through walls during rains. The architect, Mr.Dipankas Das, was looking for solutions that can arrest this problem and protect the structure aesthetical as well as structural damage.



### **Project Details:**

Name: Jadavpur University SGTC, Kolkata Associate: Job Quantum: 5,000 ft2 Vertical

DryCoat / Zycoplug & Zycoprime+ Products:

Period: June 2015





Zycosil+, our patented organosilane nanoreactive technology alongwith combination other products were presented to them for evaluation and consideration.

After successful evaluation, they decided to opt for our nanotechnology solution for waterproofing of the section of vertical walls of the university building. The job was carried out successfully by their own contractor, M/s.P.B.Nirman Udyog Pvt. Ltd., to the best of customer's satisfaction.



- Dampness
- Seepage
- Carbonation
- Paint Peeling
- Fungal Growth
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete











### Government

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### Township Multi-storied Towers @ ONGC-Ankleshwar

# **The Challenge**

One of India's leading Oil & Gas Exploration PSU were carrying out facelift of their township multistoried buildings at Ankleshwar project. Even though reasonable surface repair was planned, yet ingression of water in the form of seepage and dampness was an excepted phenomenon having no viable and proven solution in the market.



Drycoat was introduced and presented to the authorities through table-top demonstrations at the desk of various officials involved in the project across the hierarchy.

A section of the wall in the ongoing project was treated by flooding till saturation. After successful testing of the treated surface by the technical team and the contractor's supervisors, it was incorporated as an 'extra item' in the running project as a - Water Resistant Treatment of Exterior Walls before Painting'. For all forthcoming projects, this technology has been placed as a part of their standard BOQ, henceforth.



#### **Project Details:**

Name: ONGC. Ankleshwar

Nisa Enterprises, Vadodara Associate: Job Quantum: 2, 50, 000 ft<sup>2</sup> Vertical Walls

DryCoat / Zycoplug Products:

Period: June 2015





Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete











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### An elegant residential bungalow in the city of Hyderabad

# **The Challenge**

An elegant bungalow in the heart of Hyderabad City was facing seepage and dampness issues. As the anticipated problems were becoming imminent, they wanted to waterproof the roof, however were perplexed in the midst of a variety waterproofing products available in the market which were also commercially towards high side.



### **Project Details:**

Name: Mr.Sleeva Reddy

Associate: Green Lotus Inc., Hyderabad Job Quantum: 12.000 ft² Vertical Walls

2,500 ft² Horizontal Roof Terrace

Products: Zycosil+ / Zycoprime+

Period: November 2014



Zycosil+ was introduced and presented to the authorities by conducting an on-site demonstration.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of the exterior surface. The whole roof was treated with Zycosil+ along with the surrounding parapet. After that the complete exterior surface which experienced direct rain water was treated with Zycosil+ and Zycoprime+ Solution before painting. Post application the bungalow was painted from exterior.





- Seepage
- Carbonation
- Paint Peeling
- Fungal Growth
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete

**Extends** Paint Life on Vertical Walls











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## Residential apartment at Hyderabad

# **The Challenge**

A residential flat at Hyderabad was facing problems of seepage and dampness from the vertical walls. All waterproofing technologies deal with the horizontal surfaces, but there are hardly any options for dealing with water ingress through vertical walls. Paints do provide short term protection as permeability of water through paint is difficult to restrict.





Zycosil+ was introduced and presented to the builder conducting table-top а demonstration as well as an on-site mock-up.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of the vertical walls of the entire exterior vertical wall surface before painting. The job was carried out by trained manpower of our local business associate to complete satisfaction of the customer.

#### **Project Details:**

Name: Srinivasa Residency

Associates: Green Lotus Inc., Hyderabad

Job Quantum: 8,000 ft<sup>2</sup> Vertical Walls Zycosil+ / Zycoprime+ Products:

Period: **April 2015** 





- **Dampness**
- Seepage
- Carbonation
- Paint Peeling
- **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- **Dust Accumulation**
- Cracking of Cement Plaster/Concrete











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### Kolkata Mall facing Dampness & Seepage issues from Walls

# **The Challenge**

A mall at Kolkata city was facing issue of dampness and seepage due to water ingress through exterior walls. Also, there were efflorescence problems from both exterior as well as interior walls due to presence of salts inside the building materials. This was resulting in executing repeated painting job on the walls, as the mall had to maintain its aesthetic significance.





Zycosil+ was introduced and presented to the conducting table-top а demonstration as well as an on-site mock-up.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of the vertical walls of the entire exterior vertical wall surface before painting. The job was carried out by trained manpower of our local business associate to complete satisfaction of the customer.

#### **Project Details:**

Name: Homeland Mall

Associates: Shree Govardhandhari, Kolkata

Job Quantum: 10,000 ft<sup>2</sup> Vertical Walls DryCoat / Zycoplug Products:

Period: May 2015





- **Dampness**
- Seepage
- Carbonation
- Paint Peeling
- **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- **Dust Accumulation**
- Cracking of Cement Plaster/Concrete











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### An International School Building at Vadodara

# **The Challenge**

A reputed International School Building had beautiful architecture work with sections made out of exposed bricks. Over a period of time the exposed bricks had developed fungus at various places which were very difficult to clean out. Also, there were small areas where efflorescence had come out. This was marring the aesthetic value of the property and the management was looking for solutions for further prevention.



#### **Project Details:**

Name: Nalanda International School Anand Agencies, Vadodara Associate: Job Quantum: 6,000 ft<sup>2</sup> Exposed Brick Walls

Products: Zycosil+ Period: May 2015





our patented Zycosil+, water organosilane nano-reactive technology was introduced and presented to the management through a table-top demonstration and subsequently by carrying out a trial patches at their site.

After successful comparative evaluation of the product performance, they opted to buy Zycosil+ for waterproofing of the exterior vertical exposed brick walls of their school building. Looking at the ease of application, the management decided to carry out the application with their own manpower, which also brought down the overall cost for the technology.



#### Eliminates:

- **Dampness**
- Seepage
- Carbonation
- **Fungal Growth** Rebar Corrosion
- Alkali Silica Reaction

- Efflorescence
- Dust Accumulation











## Government

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### Varanasi Railway Station

# **The Challenge**

The entire front-section of Varanasi Railway Station required immediate repairs in view of waterproofing issues. Before the expected monsoon season, authorities wanted to carry out the refurbishment work. They were recommended from the Northern Railways office at Delhi based on their experience with the product technology at their HO Building (Baroda House), the use of nanotechnology to create reliability & increase durability of their system.





Zycosil+ was introduced and presented to the authorities through practical demonstration over several commonly used building materials.

After successful evaluation of the product technically and practically at all levels (Chief Engineer, Divisional Engineer and Assistant Engineer), they concluded for Zycosil+ to be an appropriate technology in order to increase the durability of existing membrane system.

The job was executed by professional application team of our Business Associates to the entire satisfaction of the customer.

### **Project Details:**

Name: Varanasi Railway Station

Associate: Aqua Shield executors & consultants

Job Quantum: 10,000 ft² Horizontal Roof Terrace

Products: Zycosil+ / Zycoprime+

Period: May 2015





- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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## A Bungalow Project at Gurgaon

# **The Challenge**

A mid-size real estate developer specializing in luxury projects were looking for solutions that can address issues related to vertical wall seepage and dampness.

Their only resort was carrying out crack-filling of visible openings over the walls. However, this approach is never ever capable of completely eradicating dampness and seepage issues, since water also travels through micro-cracks to make its way in.



#### **Project Details:**

Rosewood City Name:

Associates: Apport Group, Gurgaon Job Quantum: 50,000 ft2 Vertical Walls Zycosil+ / Zycoprime+ Products:

Period: June 2015



Zycosil+ was introduced and presented to the builder by conducting а table-top demonstration. Impressed with the product technology the Managing Director of Apport Group paid a visit to Zydex HO and factory in order to get a complete understanding of the product technology.

Subsequently, looking at the ease of usage they decided to carry out the application themselves through in-house their manpower. Zydex organized an on-site training for their technicians. Eventually they themselves carried our exterior wall waterresistant treatment for their ongoing Rosewood project.



- Seepage Carbonation
- Paint Peeling
- **Fungal Growth** Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- **Dust Accumulation**
- Cracking of Cement Plaster/Concrete













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## Podium Waterproofing in a Kolkata Project

# **The Challenge**

A project coming up at Kolkata, Behala Chowrasta were wanting to provide a reliable solution for waterproofing of their ground level podiums. This podium had a basement parking and was carrying planters on either sides of the ground floor slab. Thus, they were concerned about it future durability based on their past experience with polymeric membranes.



### **Project Details:**

Name:

Associate: P. C. Enterprises, Kolkata Job Quantum: 40,000 ft<sup>2</sup> Podium & Walls

Products: DryCoat / Zycoplug / Zycoprime+

Period: July 2015





DryCoat was introduced and presented to the authorities by conducting an on-site demonstration.

After successful evaluation of the product performance, they decided to use DryCoat for treatment of their proposed podium. Post application of Silane technology, the surfaces were also coated with polymer modified cementitious membrane. This ensured that there is a double layer protection to the system from ingress of water.

They had experienced efflorescence from the walls in past and decided to use DryCoat for sections of the Wall as well. The job was executed by trained manpower of our Business Associate.



- **Dampness**
- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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### Director's House of Merlin Group

# **The Challenge**

One of the biggest real estate company of India and one of the founder members of CREDAI, namely, The Merlin Group, was introduced to Zydex Nanotechnology for the Construction Industry.

During the course of interaction a small job was given as a challenge to Zydex Manager which eventually became a door-opener for future association.



### **Project Details:**

Name: Merlin Group

Associates: Shree Govardhandhari, Kolkata

Job Quantum: 1,000 ft2 Vertical Walls

Zvcosil+ Products: Period: May 2015





DryCoat was introduced and presented to the builder by conducting table-top а demonstration as well as an on-site mock-up.

The management upon knowing innovative technology immediately implemented it in their upcoming projects. However, a small job was awarded at the Director's Residence to reduce efflorescence and paint peel off. It was executed personally by Zydex Manager to total satisfaction of the customer.



- Seepage
- Carbonation
- Paint Peeling **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete











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## Terrace Waterproofing of a High-rise Apartment at Bhubaneshwar

# **The Challenge**

At Bhubaneswar, a builder was facing issues of terrace leakage due to surface cracks resulting in damage of interior putty and painting work.

They were looking for a cost effective method of resolving this problem without too much messy work on their roof terrace. At that time Aakar Architect introduced them to our technology.



### **Project Details:**

Name: LDV Residency, Kalarahanga Associate: Akamai WPS, Bhubaneswar Job Quantum: 15,000 ft² Horizontal Roof Terrace

Products: Zycosil+ / Zycoprime+

Period: June 2015



Zycosil+ was introduced and presented to the authorities by conducting an on-site demonstration.

They decided to carry out the repair by Zydex Nanotechnology and subsequently gave the contract to our authorized and trained Business Associate at Bhubaneshwar. The visible cracks were repaired using polymeric cement-sand mix after pre-treatment of Zycosil+ and the entire roof was thoroughly saturated by Silane Solution to get absolute water resistivity.





- Dampness
- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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### Vertical Walls of a Residential Project at Bhubaneshwar

# **The Challenge**

A reputed real estate developer were looking for solutions that can address issues related to vertical wall seepage and dampness in their completed projects. Their only resort was carrying out crack-filling of visible openings over the plastered walls, however, in spite of carrying out crack repair, it is a fact that wall dampness and seepage continues to exist.



Zycosil+ was introduced and presented to the builder conducting table-top а demonstration as well as an on-site mock-up in one of the project of this builder.

Upon successful evaluation of the product performance in their past project, they decided to try it in this project too. The VP and Quality Head were reasonably confident on Zydex Nanotechnology based on its performance. It was executed by trained professional of our authorized Business Associate.



#### **Project Details:**

Name: Ecstasy, Gothapatna

Associates: Akamai WPS, Bhubaneshwar

Job Quantum: 30,000 ft<sup>2</sup> Vertical Walls Zycosil+ / Zycoprime+ Products:

Period: April 2015



- **Dampness**
- Seepage
- Carbonation
- Paint Peeling
- **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete













### Government

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### Pollution Control Board premises at Bhubaneshwar

# **The Challenge**

Technical Presentation at Consultant. M/s.Golden Woodpecker's office got them interested to protect Red Sand Stone wall which they were constructing at Pollution Control Board premises. These stones were 25 mm thick and were designed to make the boundary wall.

Customer was very skeptical initially and wanted to assure the effectiveness of the technology before implementing it in the project.



#### **Project Details:**

Name: Pollution Control Board

Chakadola Sales, Bhubaneshwar Associate: Job Quantum: 20,000 ft<sup>2</sup> Red Sand Stone Wall

Products: Zycosil+ / Nano Silicon Period: September 2015



**Treatment at various Dilutions** 

After Treatment

Red Sand

**Original Red Sand Stone** 







Zycosil+ was introduced and presented to the authorities through table-top and practical demonstration. This demonstration carried out by diluting Zycosil+ at various dilutions along with Nano Silicon.

After successful evaluation of the product, they voted Zycosil+ to be an appropriate technology as it did not change the stone appearance. But to be doubly assured if this technology can actually make a surface water resistant, an entire piece of stone was treated and after 48 hours of curing ,it was dipped in water for 24 hours. The difference in weight of the stone before (2.830 kgs.) and after (2.835 kgs.) dipping was only 5 gms. This gave confident to customer that Zydex Technology can actually protect & preserve any siliceous material very effectively.



#### **Eliminates:**

- **Dampness**
- Seepage
- Carbonation
- **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

- Efflorescence
- Dust Accumulation











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### 200 Sunken Slabs in a Large RE Project of Bhubaneshwar

# **The Challenge**

Through reference from Ar.B.S.Mishra (M/s. SpaceCube), Zydex technology was introduced to the builder. The MD was wanting to try some advanced technology that is more reliable and provide long-term and trouble-free performance to its owners. It was important for this reputed project towards West Bhubaneshwar to have a dependable technology.



### **Project Details:**

Sai Ashray, Gothapatna Name: Akamai WPS, Bhubaneshwar Associate: Job Quantum: 16,000 ft<sup>2</sup> Sunken Slabs

Products: Zycosil+ / Zycoprime+ / Elastobar

Period: **April 2015** 





Zycosil+ was introduced and presented to the authorities by conducting on-site an demonstration.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of their proposed project. The most vulnerable of all areas are the Sunken Slabs which becomes inaccessible after completion of the project. And also due to constant usage by its owners it is always the most difficult retrofitting work to be executed.

They decided to carry out Silane treatment on all the 200 sunken slabs of this project, followed by conventional polymer modified cementitious membrane. Silane will make the concrete water resistant thus, increasing durability of the membrane.



- **Dampness**
- Seepage
- **Fungal Growth**
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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### Mall in Purulia City of West Bengal

# **The Challenge**

In the small Purulia city of West Bengal, the largest project was coming up. It comprised of a Mall along with Residential Apartments at its back side. The structure was to be the tallest building construction in the nearest vicinity. Proximity to the Steel City of Bokaro made this an upcoming venue for the Rurban population residing there.



### **Project Details:**

Name: City Life Mall, Purulia
Associate: Mata Singhwahini, Bokaro
Job Quantum: 17,000 ft² Terrace, Podium &

Swimming Pool

Products: Zycosil+ / Zycoprime+

Period: June 2015



Zycosil+ was introduced and presented to the builder by conducting a table-top demonstration and an on-site mock-up.

After successful evaluation of the product performance, they decided to use Zycosil+for treatment of their proposed project. The construction incorporated a swimming pool at the third floor and a multiplex theater at towards the top floor.

They decided to carry out Silane treatment on all of these water retaining slabs before application of polymeric membranes. Silane will make the concrete water resistant thus, increasing durability of the membrane.



- Dampness
- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation













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### Vertical Walls Waterproofing at Bhubaneshwar

# **The Challenge**

A reputed real estate developer at Bhubaneshwar, M/s. Kansu Properties Pvt. Ltd., were looking for solutions that can address issues related to vertical wall seepage and dampness based on their past experience. Their only resort was carrying out crack-filling of visible openings over the walls. However, this approach was not effective in eliminating the problem satisfactorily.



Zycosil+ was introduced and presented to the builder by conducting a table-top demonstration as well as an on-site mock-up. The builder was impressed by the effectively of the organosilane chemical.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of the vertical walls of their ongoing project at Rasulgarh. The entire exterior plaster was treated with Zydex Nanotechnology before carrying out painting application.



#### **Project Details:**

Name: Muskan Mansion, Bhubaneshwar Associates: Akamai WPS, Bhubaneswar Job Quantum: 20,000 ft² Vertical Walls Products: Zycosil+ / Zycoprime+

Period: May 2015





- Seepage
- Carbonation
- Paint PeelingFungal Growth
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete











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#### Multi-storied Tower at Kochi

# **The Challenge**

A well-known developer group of Kochi engaged in diverse business activities and having their origin at Goa were coming up with a massive G+15 residential tower at Kakkanad in the city of Kochi.

The idea of waterproofing the vertical walls to eliminate Dampness and Seepage issues was new to them. The GM sitting at Trivandrum was involved in decision making to introduce new innovative technologies.



#### **Project Details:**

Name: Heera Cyber Views, Kakkanad Associates: Unipro Enterprises LLP, Kochi Job Quantum: 35,000 ft<sup>2</sup> Vertical Walls

Zycosil+ / Zycoprime+ Products:

Period: August 2015



Zycosil+ was introduced and presented at the GM Office at Trivandrum by conducting a table-top demonstration. They extremely impressed by the effect of the organosilane chemical over cementitious surfaces.

After successful evaluation of the product performance from their end, they decided to use Zycosil+ for treatment of the vertical walls of their upcoming project at Kakkanad. The entire exterior plaster was treated with Zydex Nanotechnology before carrying out painting application which was executed by trained manpower of our Business Associate.



- Seepage
- Carbonation
- Paint Peeling
- **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- **Dust Accumulation**
- Cracking of Cement Plaster/Concrete













### Monument

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### Ramakrishna Mission Student's Home at Chennai

# **The Challenge**

The Ramakrishna Mission Student's Home at Mylapore of Chennai City is an old structure having much historic importance. They are being consulted by the reputed architectural firm of Ar.C.Narayana Rao.

The school Secretary was considering repair and rehabilitation work of the institution's roof.



### **Project Details:**

Name: RKM Student's Home, Mylapore

Associate: ABC Ceramics, Chennai

Job Quantum: 12,000 ft<sup>2</sup> Horizontal Roof Terrace

Products: Zycosil+ / Zycoprime+

Period: August 2015



Zycosil+ technology was familiar to the Consultant and was introduced to the school authorities through a joint presentation at their premises.

School authorities gave their consent to use Zycosil+ for treatment of their proposed roof. After carrying out treatment of the entire roof with Zydex Nanotechnology, it was subsequently cladded with heat insulating tiles. The job was meticulously carried out by our trained technicians of authorized Business Associate to the best of customer's satisfaction.





- Dampness
- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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### Muvattupuzha Co-operative Super Specialty Hospital

# **The Challenge**

A super specialty hospital was coming up at Muvattupuzha, a municipality in the eastern side of Ernakulam District. The hospital painting contractor was aware of Zydex Nanotechnology treatment before painting to make the walls resistant towards Dampness and Seepage.

The contractor took initiative to introduced this technology to his customer.



#### **Project Details:**

Name: Co-operative Hospital
Associates: Vikas Enterprises, Cochin
Job Quantum: 16,000 ft² Vertical Walls
Products: Zycosil+ / Zycoprime+

Period: August 2015





Zycosil+ was introduced and presented to one of the Director by conducting a table-top demonstration as well as an on-site mock-up.

After successful evaluation of the product performance, they decided to use Zycosil+for treatment of the vertical walls of the entire hospital building. They found the technology to be extremely useful especially for such Super Specialty service locations, where ingress of dampness can result in mold and mildew formation in the interiors which will be utterly unforgiving, in wake of the services provided by them to the society.



- Seepage
- Carbonation
- Paint Peeling
- Fungal Growth
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete











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## A Large RE project in the small city of Vyara

# **The Challenge**

Parishram is a well-known group with its projects in various cities of Gujarat. They were coming up with a large project near the small city of Vyara.

This place is rather known for its proximity to one of the Nuclear power plants of India and an old reputed Paper Mill.



### **Project Details:**

Parishram Heights, Vyara Name: Associate: Deco Agency, Surat

Job Quantum: 10,000 ft<sup>2</sup> Sunken Slabs & Podium

Products: Zycosil+ / Zycoprime+

Period: May 2015





Zycosil+ was introduced and presented to the authorities by conducting a demonstration.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of their proposed project. The most vulnerable of all areas are the Sunken Slabs which becomes inaccessible after completion of the project. And also the podium area was critical due to constant usage by its owners, as once faltered, it is always the most difficult retrofitting work to be executed.

They decided to carry out Silane treatment on all the Sunken and Podium slabs of this project, followed by conventional polymer modified cementitious membrane. Silane will make the concrete water resistant thus, increasing durability of the membrane.



- **Dampness**
- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











# Industrial

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## A Mould and Die producing Industrial Unit near Vadodara

# **The Challenge**

An Industrial unit near Vadodara city into manufacturing of Moulds and Dies were in the process of reinstating their roof waterproofing. It was large area and of utmost importance to the customer, as a leaking or seeping roof will hamper the manufacturing activities.

They were looking for some long term reliable solution, as conventional polymeric solutions were unable to give too much service life.



#### **Project Details:**

Name: Baroda Moulds & Dies Contractor: Solutions, Vadodara Job Quantum: 15,000 ft² Open Terrace

Products: Zycosil+ / Zycoprime+ / Elastobar

Period: June 2015



Zycosil+, our patented water soluble organosilane nano-reactive penetrative waterproofing technology was introduced and presented to the MD through a table-top demonstration.

After getting a clear understanding of the technology and its effectiveness, they opted to use Zycosil+ for treatment of the complete roof terrace. After saturated treatment of the roof terrace, the pre-opened wider cracks were filled-up by Zycoprime+ mixed cement-silica mortar. Eventually, the entire roof surface was coated with two coats white cement modified with elastomeric co-polymer Elastobar. The white surface will reflect sunlight thus increasing the reflectivity and Silane shall provide it durability for long term.







- Dampness
- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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## ITM-Universe College building at Vadodara

# **The Challenge**

ITM-Universe is one of the leading technical institution near Vadodara City. It has an expansive campus incorporating all the streams of engineering. Its architecture department is one of its own kind and displays a unique collection of artworks done by sculptors from different parts of the globe.

The management was keen on preserving the aesthetic value of their building, especially the sections made out of exposed bricks.



### **Project Details:**

Name: ITM Universe, Vadodara

Associate: Direct

Job Quantum: 20,000 ft<sup>2</sup> Exposed Brick Walls

Products: Zycosil+ / Nano Silicon

Period: July 2015



Zycosil+ Nanotechnology was introduced and presented to the management through a table-top demonstration and subsequently by carrying out a trial patches at their site.

The product performance was evaluated by various learned members from the management. Through evaluation of the technology and upon complete satisfaction they opted to utilize Zydex Technology, both Silane and Siloxane chemicals for protection of their Exposed Brick sections.

As a result of understanding the simplicity of the application, the institution decided to buy the material and apply themselves, utilizing in-house manpower. This resulted is cutting down the total cost of delivery.





- Dampness
- Seepage
- Carbonation
- Fungal Growth
- Rebar Corrosion
- Alkali Silica Reaction

- Efflorescence
- Dust Accumulation











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## Visvesvaraya College of Engineering, Bangalore

# **The Challenge**

BRS projects had undertaken a massive construction project of this engineering college. For waterproofing, various technologies were being considered. Although polymeric membranes are a widely accepted technology but over a period of time their reliability is always questionable. The builder was considering several options for better reliability.



### **Project Details:**

Name: Visvesvaraya Engineering College Associate: PSF Technologies, Bangalore Job Quantum: 1,00,000 ft<sup>2</sup> Sunken, Terrace,

Podium and Water tanks

Products: Zycosil+ / Zycoprime+ / Elastobar

Period: August 2015



Zycosil+ was introduced and presented to the builder and the architects by conducting a demonstration.

After successful evaluation of the product performance, they decided to use Zycosil+for treatment of their proposed project.

They decided to carry out Silane treatment on all the Sunken, Terrace, Podium and Water tank RCC slabs of this project, followed by conventional polymer modified cementitious membrane. Silane will make the concrete water resistant thus, increasing durability of the membrane. When over a period of time the polymeric membrane become more permeable, the base concrete shall not absorb water causing disbonding of the membrane.





- Dampness
- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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## Lifestyle Villas near Bengaluru

# **The Challenge**

Good Earth, known for its ethnic style architecture work was coming up with a large lifestyle villa project in the outskirts of Bengaluru. The road going towards Mysuru passes through this region called Kengeri where this villas project was commencing. The entire design was based on exposed brick exteriors, mud tiled roofs and a variety of exotic natural materials. One of the most sought after lavish project was seeking some unique technology for its aesthetic preservation.



### **Project Details:**

Name: Good Earth Villa Project, Kengeri Associate: Gowri Agencies, Bengaluru Job Quantum: 2,00,000 ft² Exposed Brick Walls

Products: Zycosil+ Period: May 2015





Zycosil+ nano-reactive technology was introduced and presented to the Director through a table-top demonstration and subsequently by carrying out a trial patches at their site.

After extensive evaluation of the product performance based on the trials provided, they opted to use Zycosil+ for treatment of the exposed brick walls in this project.

This also lead to considering Zydex Organosilane technology for building the internal roads of this project and the builder principally agreed to incorporate it during construction of the road. Director of this developing firm was so impressed by this innovative technology that it was recommended from his desk, to even the municipal corporation for consideration.



#### **Eliminates:**

- Dampness
- Seepage
- Carbonation
- Fungal Growth
- Rebar Corrosion
- Alkali Silica Reaction

- Efflorescence
- Dust Accumulation











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## A mid-size residential project at Bengaluru

# **The Challenge**

Shristi Developers were in the process of developing a mid-size residential apartment scheme. Based on past experience, they wanted a reliable solution for protection of the sunken and terrace in order to avoid post-construction repair due to occurrence of water ingress through these areas.



### **Project Details:**

Name: Shristi Developers

PSF Technologies, Bangalore Associate: Job Quantum: 40,000 ft<sup>2</sup> Sunken & Terrace Products: Zycosil+ / Zycoprime+ / Elastobar

Period: September 2015



Zycosil+ was introduced and presented to the engineer and the architect by conducting a table-top demonstration.

They evaluated its performance by carrying out extended ponding test and upon complete satisfaction, decided use to Zycosil+ for pre-treatment of their proposed project before application of polymers.

They decided to carry out Silane treatment on all the Sunken and Terrace slabs of this project, followed by conventional polymer modified cementitious membrane. Silane will make the concrete water resistant thus, increasing durability of the membrane. When over a period of time the polymeric membrane become more permeable, the base concrete shall not absorb water causing disbonding of the membrane.





- **Dampness**
- Seepage
- **Fungal Growth**
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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# Carmel Engineering College Building at Kerala

# **The Challenge**

An Engineering College building was coming up at Alappuzha. The builder was evaluating several protection technologies. Meanwhile, their Architect introduced them to Zydex Nanotechnology for protection of Vertical Walls against Dampness and Seepage.

Although initially skeptical, but subsequently the authorities agreed for a site trial to evaluate the product.



### **Project Details:**

Name: Carmel Engineering College Associates: Unipro Enterprises LLP, Cochin

Job Quantum: 80,000 ft² Vertical Walls
Products: Zycosil+ / Zycoprime+
Period: September 2015



Zycosil+ was introduced and presented to one of the Director by conducting a table-top demonstration as well as an on-site mock-up.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of the vertical walls of the entire College building. The job was executed by trained manpower of our Business Associate and utilizing two latest technology GRACO airless spray guns in shortest period of time and to the best of customer's satisfaction.



- Seepage
- Carbonation
- Paint Peeling
- Fungal Growth
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete













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## A reputed residential project at Bangalore

# **The Challenge**

residential SVS Builders were making a development. Based on past experience they were trying to evaluate a better product technology for infusing long-term reliability into their projects.

During this time our Business Associate approached them and introduced Zydex Nanotechnology pre-treatment to the builder.



### **Project Details:**

**SVS Palms** Name:

Associate: Novachem Engineers, Bangalore Job Quantum: 75,000 ft2 Terrace & Sunken Products: Zycosil+ / Zycoprime+ / Elastobar

Period: July 2015



Zycosil+ was introduced and presented to the builder and their engineers by conducting a demonstration.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of their proposed project.

They recommended Silane treatment on all the Terrace and Sunken slabs of this project, followed by conventional polymer modified cementitious membrane. Silane will make the concrete water resistant thus, increasing durability of the membrane. When over a period of time the polymeric membrane become more permeable, the base concrete shall not absorb water causing disbonding of the membrane.





- **Dampness**
- Seepage
- **Fungal Growth**
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











# Industrial

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# Roof Terrace of a Food Processing Unit at Bengaluru

# **The Challenge**

SVS is the leading wholesaler manufacturers and distributors of flour products in Karnataka. They were planning repair and rehabilitation of their company premises. During this period their technical team came to know about Zydex penetrative nanotechnology product for waterproofing.



Zycosil+ technology was introduced and presented to the Technical Team of this organization through a table-top demonstration and by conducting an on-site mock-up.



After getting a clear understanding of the technology and its effectiveness, they opted to use Zycosil+ for treatment of the complete roof terrace. After saturated treatment of the roof terrace with Zycosil solution, the entire roof surface was coated with two coats cement modified with elastomeric co-polymer Elastobar. The job was carried out by trained manpower of our Business Associate to the best of customer's satisfaction.

### **Project Details:**

Name: SVS Food Products

Contractor: Gowri Agencies, Bangalore

Job Quantum: 10,000 ft<sup>2</sup> Terrace

Products: Zycosil+ / Zycoprime+ / Elastobar

Period: July 2015



- Dampness
- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation













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# A leading builder group's residential project at Udupi

# **The Challenge**

Sai Radha Developers is one the well-known developer having nurtured many projects which offers residents the best of amenities, the ease of access and security at affordable prices.

On of their project was upcoming at Bannanje and they were approached by our Business Associate from Manipal and introduced to Zydex Nanotechnology.



### **Project Details:**

Sai Radha Samadhan, Udupi Name: Shrushti Engineers, Manipal Associate: Job Quantum: 25,000 ft2 Terrace & Sunken Products: Zycosil+ / Zycoprime+ / Elastobar

**April 2015** Period:



Zycosil+ was introduced and presented to the MD and their engineers by conducting a demonstration.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of their proposed project.

They recommended Silane treatment on all the Terrace and Sunken slabs of this project, followed by conventional polymer modified cementitious membrane. Silane will make the concrete water resistant thus, increasing durability of the membrane. When over a period of time the polymeric membrane become more permeable, the base concrete shall not absorb water causing disbonding of the membrane.





**Dampness** 

BENE

- Seepage
- **Fungal Growth**
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- **Dust Accumulation**











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# A high-rise apartment project in Kozhikode

# **The Challenge**

Stapati is a firm headed by Ar. Tony Joseph with over 100 design professionals having offices in Calicut, Cochin, Bangalore and Dubai. The firm handles several projects in India and abroad. Based on their past experience with Zydex Nanotechnology, they were keen to introduce this product to their clients in this upcoming high-rise project.





Zycosil+ was introduced and presented to one of the Client of this Architect by conducting a table-top demonstration as well as an on-site mock-up.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of the vertical walls of the entire high-rise building. The job was carried out by our Business Associate and team of trained manpower.

### **Project Details:**

South Stone Apartments Name: Associates: Roofex Engineers, Kochi

Job Quantum: 35,000 ft<sup>2</sup> Exterior Plastered Walls

Zycosil+ / Zycoprime+ Products: Period: September 2015





- Seepage Carbonation
- Paint Peeling
- **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete







# **Zydex Green Road Technology**

# **Private Road**

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## Unpaved Road construction at Charotar University

# **The Challenge**

The premises of Charotar University of Science and Technology in Anand District is spread over a large area comprising of almost all streams of engineering faculties. They have a department which does plenty of testing and research work on Nanotechnology products.

Having come across Zydex they had invited our President to deliver a technical lecture on organosilane nanotechnology. At the same time they shared their interest in building internal unpaved road within university campus by using Zydex products.

#### APPLICATION METHODOLOGY

1) The unpaved surface was scarified upto 10 cm using a tractor



2) Cement was added into the scarified soil @ 1% by volume



3) Terrasil water @ 1:300 dilution was sprayed over the soil



4) This wet soil was again scarified followed by compaction



5) The whole process was witnessed and assisted by the Students and Faculty Members of the College



### **Project Details:**

Name: Charotar University Campus

Associate: Zydex Products: Terrasil

Period: October 2015



For constructing a road of  $40m \times 6m = 240m^2$ 

- 10 kgs. of Terrasil
- ☐ 500 kgs. of Cement
- □ 3,000 liters Water (Potable)













# Industrial

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# A leading EOU into Bakery & Confectioners in Hyderabad

# **The Challenge**

Marino is an upcoming brand in the field of Confectioners and bakery segment. After operating for more than a decade from Bihar and Jharkhand, the promoters expanded their manufacturing to Hyderabad to cater the export market.

The idea of complete waterproofing of building from 180<sup>0</sup> was well accepted by the management of the institution.



### **Project Details:**

Name: Marino Food Products
Associate: Green Lotus Inc., Hyderabad

Job Quantum: 30,000 ft² Vertical Products: Zycosil+ / Zycoprime+

Period: March 2014





Zycosil+ was introduced and presented to the authorities by conducting an on-site demonstration.

After successful evaluation of the product performance, they decided to carry out treatment of the vertical walls of the entire plant building. Protection from dampness and seepage was important for this unit, as they deal with perishable food products which are susceptible to water ingress. The job was carried out by trained technicians to customer's full satisfaction.



- Dampness
- Seepage
- Carbonation
- Paint Peeling
- Fungal Growth
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete











# Monument

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# Tagore Theater at Trivandrum

# **The Challenge**

Tagore Theater at Trivandrum serves as a center of city's major cultural activities for several years. history dates back to 1982 Thiruvananthapuram Doordarshan Kendra began here with a small transmission unit. This building was undergoing a revamp and Kumar Group, the architect firm, were responsible for providing a dependable solution for protection of its roof.





Zycosil+ technology was familiar to the Consultant and was introduced to the authorities through a table-top demonstration.

Based on past experience of the architecture firm with this technology, they insisted on utilization of Zycosil+ for treatment of the proposed roof. After carrying out treatment of the entire roof with Zydex Nanotechnology, it was subsequently coated with polymer modified cementitious membrane. The job was meticulously carried out by our trained technicians of authorized Business Associate to the best of customer's satisfaction.

### **Project Details:**

Tagore Theater, Trivandrum Name: Unipro Enterprises LLP, Cochin Associate: Job Quantum: 7,000 ft<sup>2</sup> Horizontal Roof Terrace

Products: Zycosil+ / Zycoprime+

Period: May 2015





- **Dampness**
- Seepage
- **Fungal Growth**
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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## A plush Apartment scheme at Bangalore

# **The Challenge**

Chirag Builders were coming up with a plush multi-storied apartment scheme at Attiguppe in Bangalore. Based on their past experience they were looking for a new waterproofing contractor with better credentials. They were approached by our Business Associate and introduced to Zydex Nanotechnology.



### **Project Details:**

Name: Chirag Apartments

Associate: Gowri Agencies, Bangalore

Job Quantum: 30,000 ft² Terrace, Sunken & Tank

Products: Zycosil+ / Zycoprime+ / Elastobar

Period: June 2015



Zycosil+ was introduced and presented to the technical team and their engineers by conducting a demonstration. A mock-up was also done at the project site in one of the sunken which was subjected to extensive testing.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of their proposed project. We carried out Silane treatment on all the Terrace, Sunken slabs and Water tanks of this project, followed by conventional polymer modified cementitious membrane. Silane will make the concrete water resistant thus, increasing durability of the membrane. When over a period of time the polymeric membrane become more permeable, the base concrete shall not absorb water causing disbonding of the membrane.



### Eliminates:

- Dampness
- Seepage
- Fungal Growth
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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# Luxurious Bungalow of a RE Company's MD

# **The Challenge**

Ekatha Prime, begun its journey in 2004 with various objectives in real estate development information technology. They committed themselves to providing superior specifications, better amenities and world class lifestyle options to their customers. Recently, MD of the company was building his own bungalow.



### **Project Details:**

Ekatha Prime MD's Bungalow Name: Green Lotus Inc, Hyderabad Associate: Job Quantum: 7,000 ft<sup>2</sup> Podium / Terrace

10.000 ft<sup>2</sup> Vertical Wall

Zycosil+ / Zycoprime+ / Elastobar Products:

Period: March 2015





Zycosil+ was introduced and presented to the Managing Director by conducting a table-top as well as an on-site demonstration at this bungalow project.

After evaluation of the product he gained confidence and decided to reinforce the existing conventional system with Zycosil+, nanotechnology organosilane.

The podium & terrace were treated with Zycosil+ for complete penetration waterproof the inner recesses of concrete, followed by laying of a modified polymeric cementitious membrane. And all the Verticals walls were treated with Zycosil+ Zycoprime+ to make them water resistant before painting.



- Carbonation
- Paint Peeling **Fungal Growth**
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete

**Extends** Paint Life on Vertical Walls











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## A Bungalow Exterior at Lucknow

# **The Challenge**

A reference took our authorized Business Associate to an Ansal API project at Lucknow. This was an residential bungalow and the exterior walls comprised of Sandstones and plastered walls. The owner was looking for ways to protect these surfaces from fungus and algae formation which is perennial problem, as some sandstones display a lot of water absorption, resulting in formation of fungus which tarnishes the aesthetic beauty of the exteriors.





Name: Residential Bungalow at Ansal API Aqua Shield Executors, Delhi Associate:

Job Quantum: 3,550 ft<sup>2</sup> Sandstone & Plaster Walls

Products: Zycosil+ / Zycoprime+

Period: July 2015





Zycosil+, our patented water organosilane nano-reactive technology was introduced and presented to the owner through a table-top demonstration and subsequently by carrying out a trial patches at his bungalow site.

After successful comparative evaluation of the product performance, he opted to use Zycosil+ for waterproofing of the exterior vertical walls comprising of plaster surfaces and sandstones. The job was successfully carried out by trained applicators of our business associate to customer's utmost satisfaction.



- Dampness
- Seepage
- Carbonation
- Fungal Growth
- **Rebar Corrosion**
- Alkali Silica Reaction

- Efflorescence
- Dust Accumulation











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## A Mixed Use High Rise Apartment scheme at Bangalore

# **The Challenge**

Canopy Estates were coming up with a mixed use high rise apartment scheme at in Bangalore. Based on their past experience they were looking for a new waterproofing contractor with better credentials. They were approached by our Business Associate and introduced to Zydex Nanotechnology.



### **Project Details:**

Name: Canopy Classic

Associate: Nidhi Technocrats, Bangalore Job Quantum: 25,000 ft<sup>2</sup> Roof, Sunken & Podium Products: Zycosil+ / Zycoprime+ / Elastobar

Period: August 2015



Zycosil+ was introduced and presented to the technical team and their engineers by conducting a demonstration. A mock-up was also done at the project site in one of the sunken which was subjected to extensive testing.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of their proposed project. We carried out Silane treatment on all the Roof. Sunken slabs and Podium areas of this project, followed by conventional polymer modified cementitious membrane. Silane will make the concrete water resistant thus, increasing durability of the membrane. When over a period of time the polymeric membrane become more permeable, the base concrete shall not absorb water causing disbonding of the membrane.





- **Dampness**
- Seepage
- **Fungal Growth**
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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## A Swimming Pool Waterproofing Job

# **The Challenge**

Indu Projects is a diversified organization with construction activity into various sectors. including, Energy, Mining, Infrastructure and Real Their RE Division was approached by our Business Associate.

They decided to try the technology in a swimming pool in one of their ongoing projects.



### **Project Details:**

Indu Projects Name:

Associate: Green Lotus Inc., Hyderabad Job Quantum: 4,000 ft<sup>2</sup> Swimming Pool

Products: Zycosil+ / Zycoprime+ / Elastobar

March 2015 Period:





Zycosil+ was introduced and presented to the authorities by conducting a demonstration.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of their swimming pool. The most vulnerable of all areas are the water retaining structures which becomes inaccessible after completion of the project. They decided to carry out Silane treatment on all the Sunken and Podium slabs of this project, followed by conventional polymer modified cementitious membrane. Silane will make the concrete water resistant thus, increasing durability of the membrane.



- **Dampness**
- Seepage
- **Fungal Growth**
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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## Horizontal Wet Areas of a Real Estate project at Hyderabad

# **The Challenge**

Rahul Builders and Developers are reputed group from Hyderabad with more than 20 years in the market segment.

They were coming up with a premium residential apartment scheme for which various technologies were being considered.



### **Project Details:**

Rahul Inspiron Name:

Associate: Shiza Stops Water, Hyderabad Job Quantum: 5,000 ft<sup>2</sup> All Horizontal Wet Slabs

Products: Zycosil+ / Zycoprime+ November 2014 Period:





Zycosil+ was introduced and presented to the engineer and project manager by conducting a table-top demonstration.

After successful evaluation of the product performance, they decided to use Zycosil+ for treatment of their proposed project. They decided to carry out Silane treatment on all the Sunken and Podium slabs of this project, followed by conventional polymer modified cementitious membrane. Silane will make the concrete water resistant thus, increasing durability of the membrane.



- **Dampness**
- Seepage
- **Fungal Growth**
- Carbonation
- Alkali Silica Reaction
- Rebar Corrosion

- Cracking of Cement Plaster/Concrete
- Dust Accumulation











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# Vertical Walls Waterproofing at Kalamassery

# **The Challenge**

Abad Builders, set up in 1995, is a leading business concern headquartered at Cochin. Abad is the first CRISIL rated builder in Kerala and has also acquired ISO 9001.

One of their high rise project was coming up at Kalamassery, Cochin. Their past experience with Zydex Nanotechnology was excellent and they openly invited bid from our Business Associate to carry out treatment of Vertical Walls.



### **Project Details:**

Name: Silver Dew (Abad Builders)
Associates: Vikas Enterprises, Cochin
Job Quantum: 13,000 ft² Vertical Walls
Products: Zycosil+ / Zycoprime+

Period: April 2015



Zycosil+ was already known to the builder and based on their past experience, the builder was impressed by the effectively of the organosilane chemical.

They decided to use Zycosil+ for treatment of the vertical walls of their ongoing project at Kalamassery. The entire exterior plaster was treated with Zydex Nanotechnology before carrying out painting application. This job was carried out at the project site by professional application team of our Business Associate.



- SeepageCarbonation
- Paint Peeling
- Fungal Growth
- Rebar Corrosion
- Alkali Silica Reaction

#### Reduces:

- Efflorescence
- Paint Consumption
- Dust Accumulation
- Cracking of Cement Plaster/Concrete























