

# Berger Paints Pakistan Ltd.

## Construction Chemicals

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Berger provides customized solutions to its customers for improving, repairing and protecting concrete structures with its product range.



# Product Range

## Construction Chemicals

Admixtures

Curing Compounds

Water Proofing System

Flooring System

Tile Adhesives

Grouts

Repairing System

Joint Sealant

# Admixtures

- ❑ Admixtures are materials other than cement aggregate and water that are added to concrete either before or during its mixing to alter its properties, such as workability, curing temperature range, set time, strength properties.
  
- ❑ A general understanding of the options available for concrete admixtures is necessary for acquiring the right product for the job.
- ❑ Based on their functions, admixtures can be classified into the following five major categories:
  - ❖ Retarding admixtures
  - ❖ Accelerating admixtures
  - ❖ Super plasticizers or high range water reducing admixtures
  - ❖ Water reducing admixtures
  - ❖ Air-entraining admixtures
  
- ❑ Among other important admixtures that do not fit into these categories are admixtures whose functions include bonding, shrinkage reduction, damp proofing and coloring.

# Admixtures

## BerPlast 200 Series

- Plasticizer
- Water reducing concrete admixture
- To produce concrete of high workability & reduces water in the mix by about 5 - 12% and improves the strength

## BerPlast 300 Series

- Super Plasticizer
- High range water reducing concrete admixture
- Recommended for producing pumpable concrete and reduces water in the mix by about 12 - 25% which results in high early compressive strength

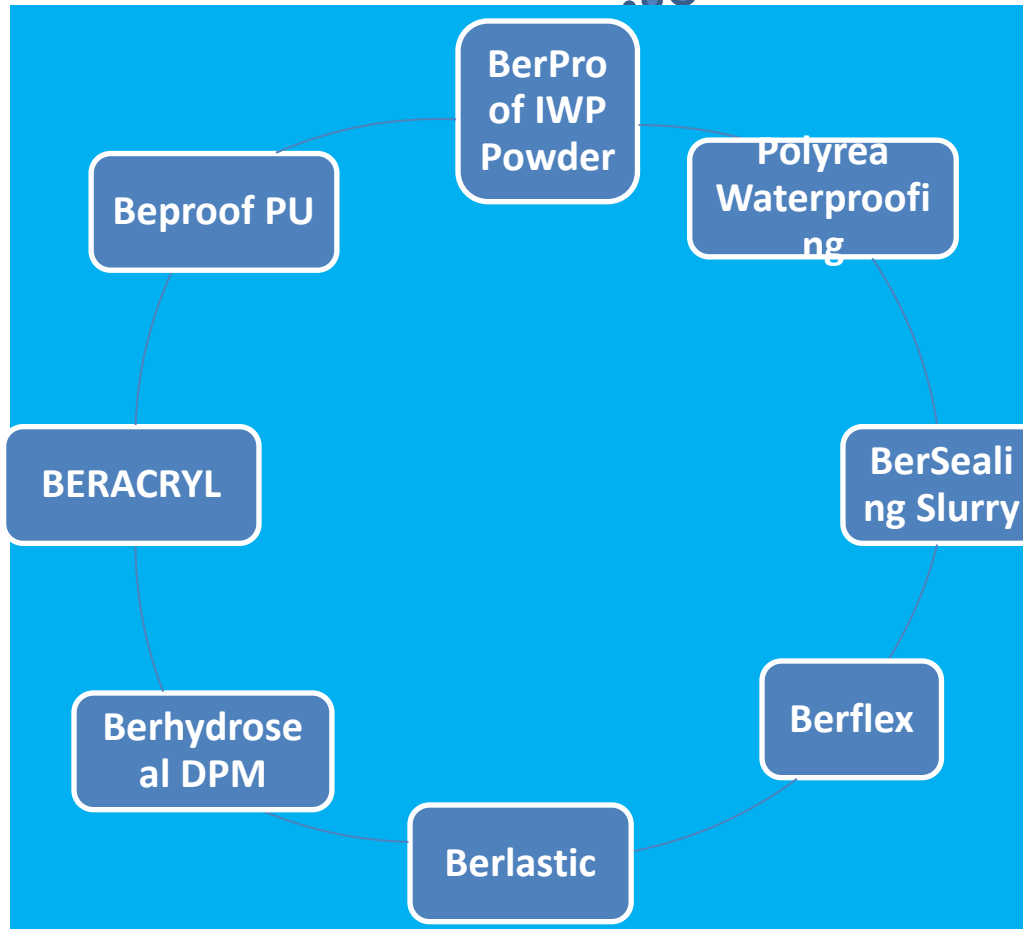
# Curing Compound:

## ❑ BerPolycure W

- ❖ Wax based curing compound, forms seamless film that prevents water evaporation
- ❖ Recommended to be applied on freshly placed concrete as an alternative to water curing so that hydration in the system proceeds to its completion



# Waterproofing System



# Waterproofing system

## Area of Application

- Shell & Flat Roofs
- Water Storage Tanks
- Under Ground Structures
- Balconies & Terraces
- Protective coating on concrete & Steel Structure
- Foundations, Basements , tunnels, Sporting Walls, Dams , Reservoirs, pounds, pools, silos, sewage plants.
- Exterior and Face Brick Structure.

# Water Proofing system

## BERPROOF IWP

BERPROOF IWP integral waterproofing admixture for cement mortar and concrete

## Polyurea Water Proofing

POLYUREA is two component System that creates a waterproof seal and is extremely flexible, giving it high impact resistance.

## BERSEALING SLURRY

BERSEALING SLURRY is Single Component acrylic co-polymer modified cementitious Waterproofing System.

## BERACRYL

Decorative and water-repellent coating for exposed surfaces.

# Water Proofing system

## BERFLEX

BERFLEX is single Component acrylic co-polymer liquid waterproofing membrane

## BERLASTIC

BERLASTIC is two component , elastomeric waterproof coating

## BERHYDROSEAL DPM

BERHYDROSEAL DPM is solvent and water free epoxy resin, liquid applied surface damp proof membrane. Designed to withstand moisture vapor from substrates.

## BER ROOF PU

BERROOF PU is Polyurethane based single component waterproofing system

# Examples of Berflex water proofing



# Berflex with Bermembrane



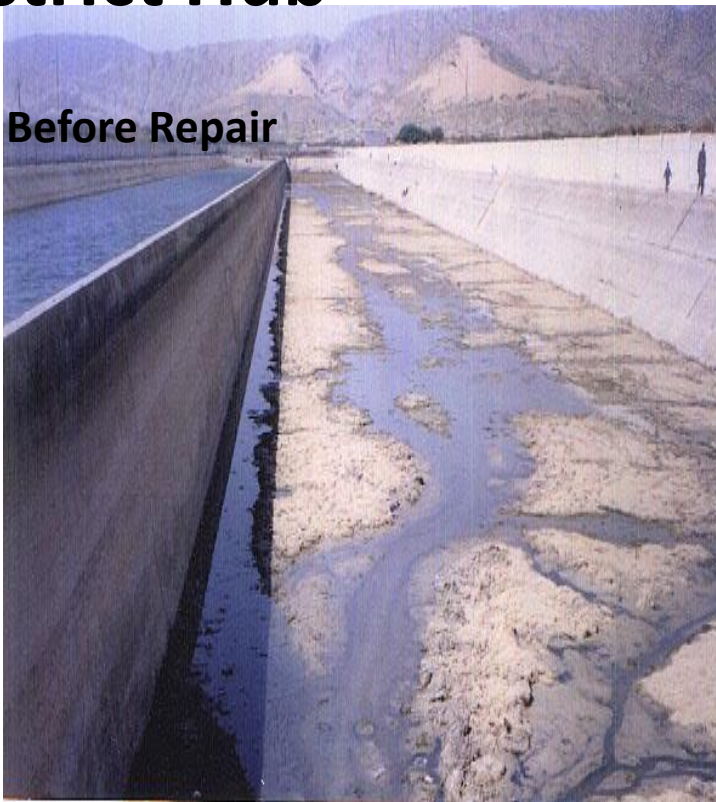
# Examples of Berlastic water proofing



# Polyurea Waterproofing



# Repaired by using Bersealing Slurry and BerGrip LIEDA Reservoir (13.5 Million Gallons Capacity), District Hub



# Cleaning of Brick Lined Water Course IRI, Lahore

Before Repair



After Repair



# WATER REPELLENT



# BERROOF PU



## FLOORING AND COATING SYSTEM

- BERSHIELD SL 1& 4
- BERTEX MORTAR
- BERCRETE PU
- BERSHIELD ANTISTATIC T580
- BERPOLY UREA
- BERTOP 500 MICRON
- BERTOPT1
- BERTOP 810
- BERTOP PU

# Flooring system

## Area of Application

- Laboratories
- Showrooms
- Hospitals
- Parking areas
- Workshops
- Food & beverages Plants
- Meat shops
- Warehouses
- Printing
- Pharmaceutical plants
- Mechanical Workshops
- Hangers

# Flooring system

## Bertop 500 Micron

Hygienic self leveling resin floor finish which provides protection to floors in light to medium duty conditions.

## Bershield SL-1 & 4

Self leveling epoxy flooring for dry areas with light to medium duty trafficking.

**Bershield SL-1:** thickness 1.0 ~ 1.5 mm

**Bershield SL-4:** thickness 2.0 ~ 4.0 mm

## Bertex Mortar

A multi component solvent free heavy duty epoxy based screed system.

# Flooring system

## Bercrete PU

Four Component self smooth high grade polyurethane flooring.

## BERSHIELD ANTISTATIC T580

Anti Static Self leveling epoxy Flooring for Sensitive areas.

## BERPOLY UREA FLOORING

Polyurea is an organic polymer that is the reaction of isocyanate with an amine terminated polyether resin, forming a plastic-like or rubber.

# Flooring system



## BERTOP T1

BERTOP T1 is two component hard chemical resistant, antibacterial, hygienic, aesthetically pleasing colored flooring and wall coating.



## BERTOP 810

BERTOP 810 is two component water base, matte finish Epoxy Coating recommended for masonry, Cement, anhydrite and magnesite substrate.



## BERTOP PU

BERTOP PU is Polyurethane based flooring and wall coating that offers excellent abrasion resistance as well as chemicals and solvents resistance.

# Examples of Bertop 500 micron



# Examples of Bershield SL1 & SL4



# Application of BERESHIELD



# Examples of BERTEX MORTAR



# Honda Altas Car Plant



# COD



# Bercrete PU

Step 1 ( Surface Preparation)



Step 2 (Primer Coat)



# Bercrete PU

Step 3 (Final Flooring)



Step 4 ( Cut the panels and fill the joint Sealant)



# Unilever Pakistan



# Gujrawala Cantt



# BERPOLYUREA



# BERSHIELD ANTISTATIC T580



# BERTOP 810



# Tile adhesives & tile grouts

**Ber Bond  
28 & 29**

Polymer modified waterproof tile adhesive for ceramic floor and wall tiles, swimming pools and stone wall cladding

**Berfill 63**

Germ proof tile grout

**Berfill 45**

Polymer modified, water proof tile grout

# Grouts



## Ber Grout 20

High strength, non-shrink, free flowing cementitious grout with fine & large aggregate size



## Ber Grout EP

Epoxy resin grout for structural applications including grouting of machinery, foundations, heavy duty support for crane, rails and dynamic loads

# Repairing System

**Ber Bond EP**

Epoxy resin structural bonding agent (bonding between old & new concrete)

**Ber Latex SBR**

Water resistant, concrete additive and bonding agent

**Ber Polymer Latex**

Polymer additive and bonding agent for cementitious system

**BerGrip**

Single component, pre packaged polymer modified mortar for repairs and renovation

# Repairing System



**Berfibercrete**

Easy to use ready mixed powder.

Excellent adhesion to concrete surfaces.

Non-Shrink.

Fibers eliminate the possible formation of cracks even when applied in thick coats.

# STRUCTURE REPAIR

Berger has the Complete Rang of Solutions.

- Repair Mortars → Cementitious and Resin
- Coating → Cementitious ,Polymer Modified and Epoxy Coatings
- Carbon Fiber → Carbon Fibers and Carbon Strips

# Causes of Reinforcement Concrete Deterioration.

- Inadequate Concrete Cover.
- Poor design.
- Quality Control Issue on Site.
- Chemical Attack
- Impact

# Concrete Repair and Protection



# Concrete Repairing

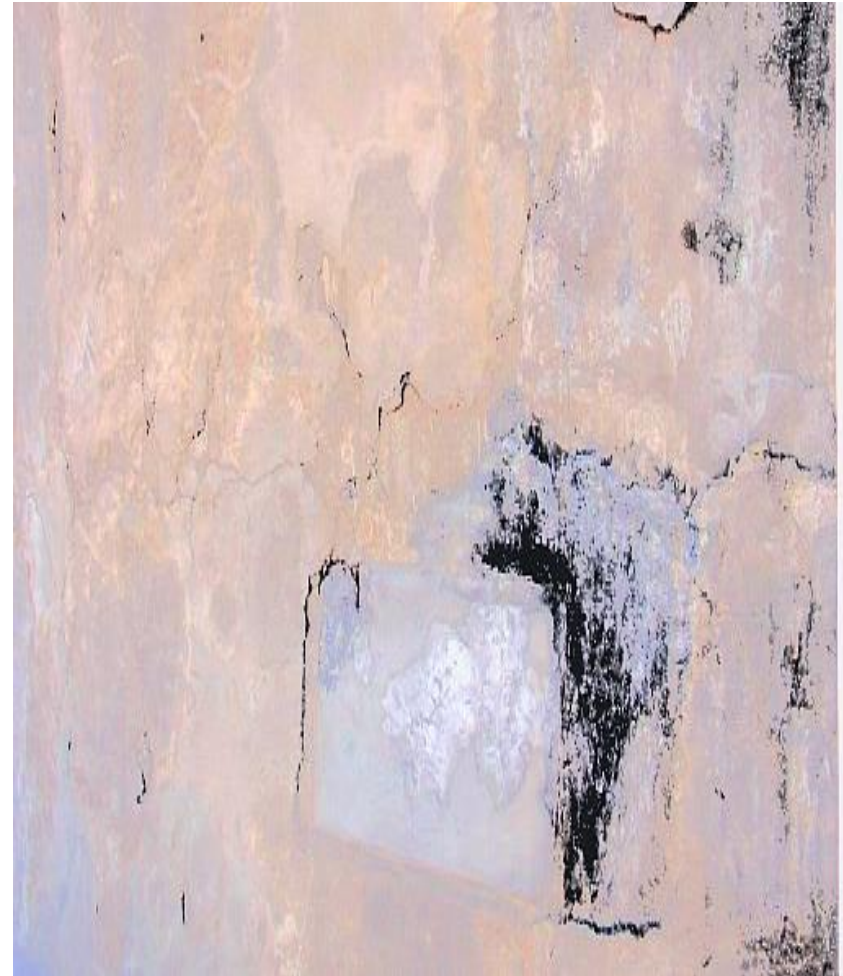
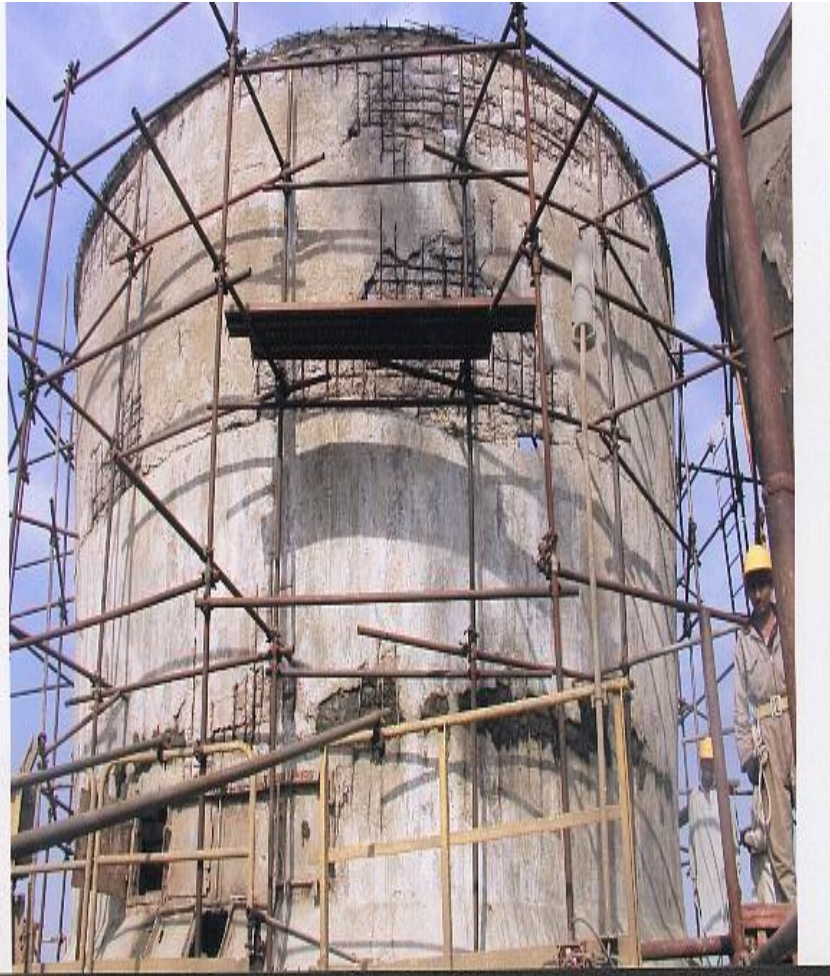
Applying Epoxy bonding agent

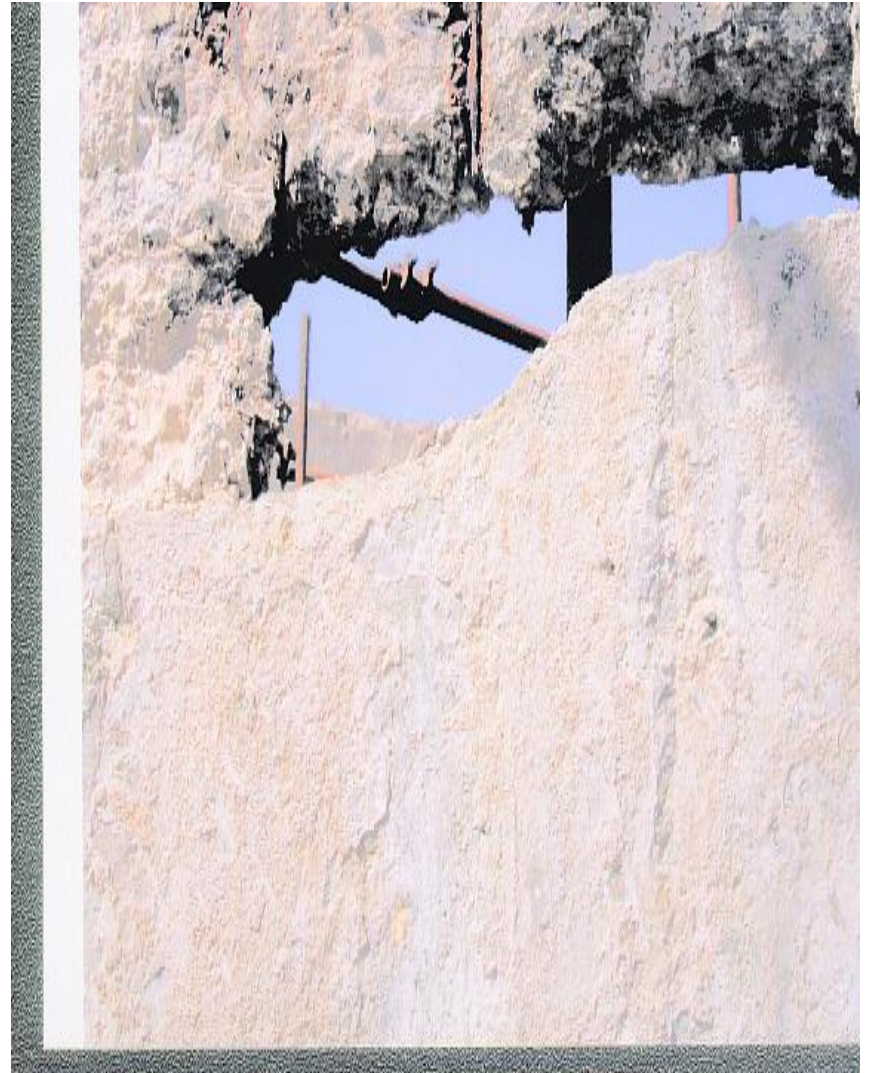
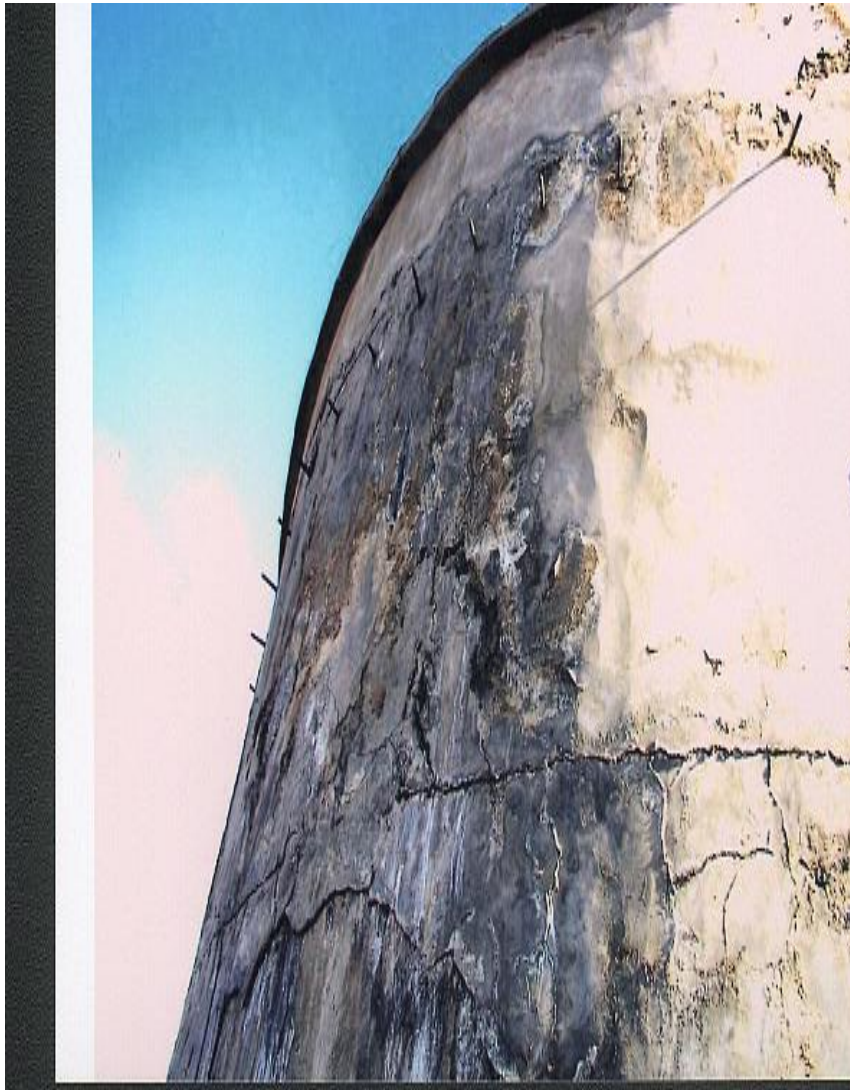


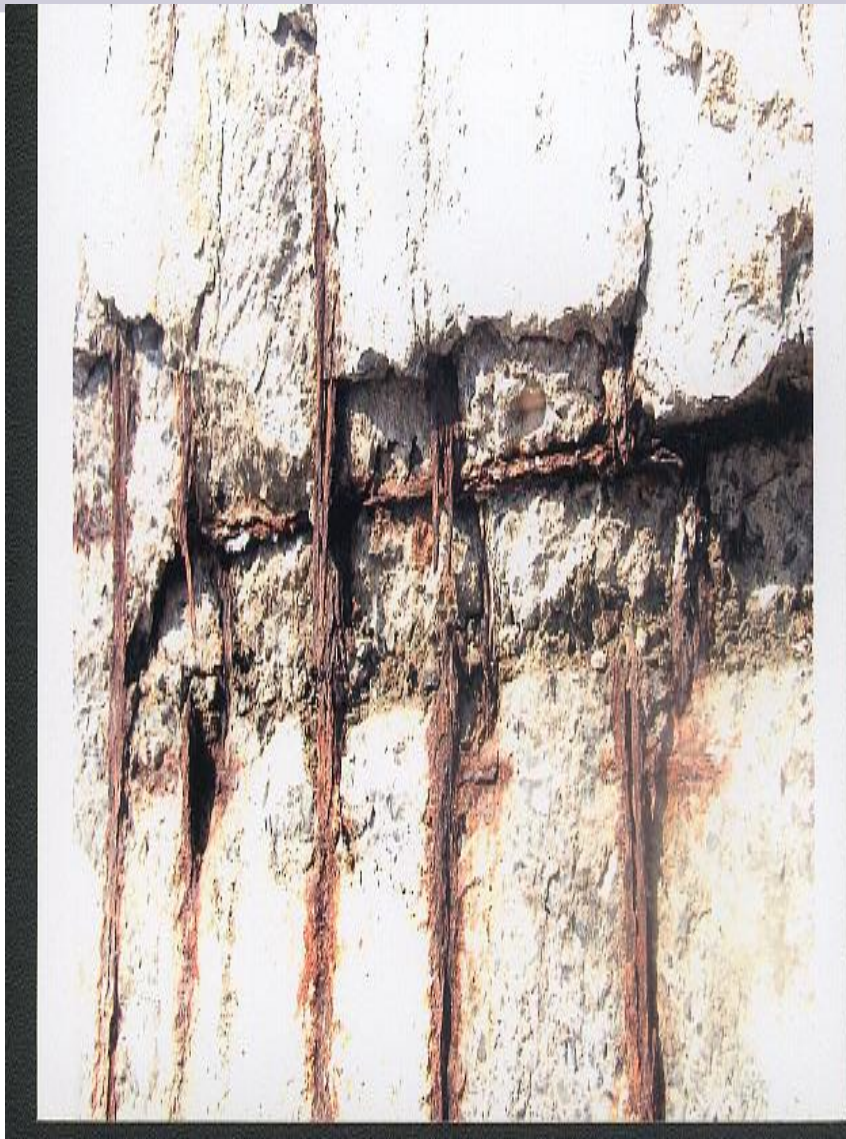
Concrete Repair with Mortar



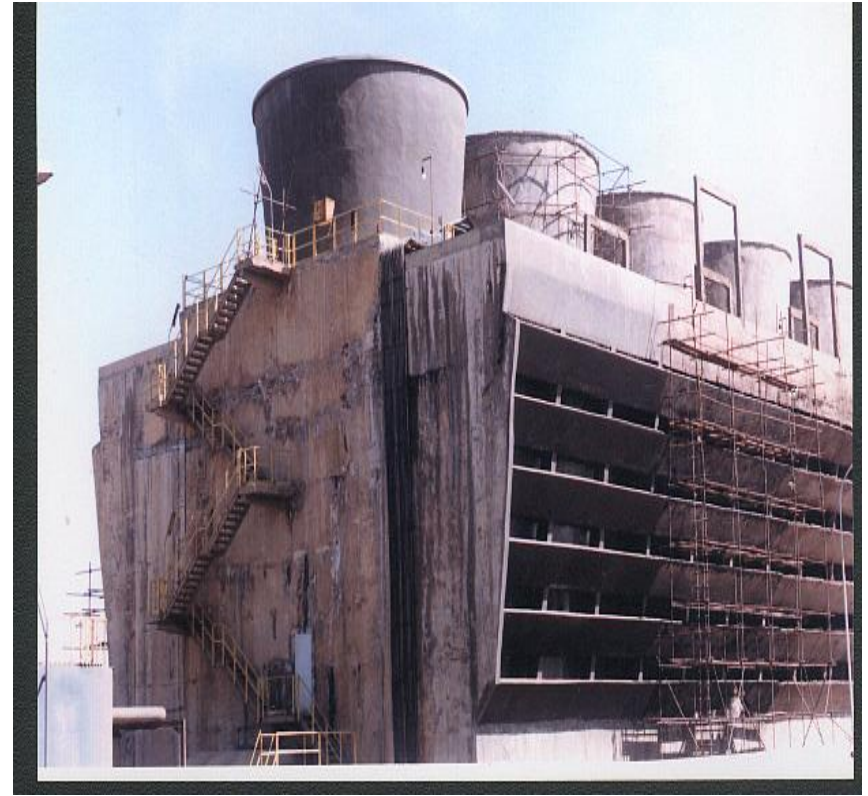
# Cooling Tower Repair

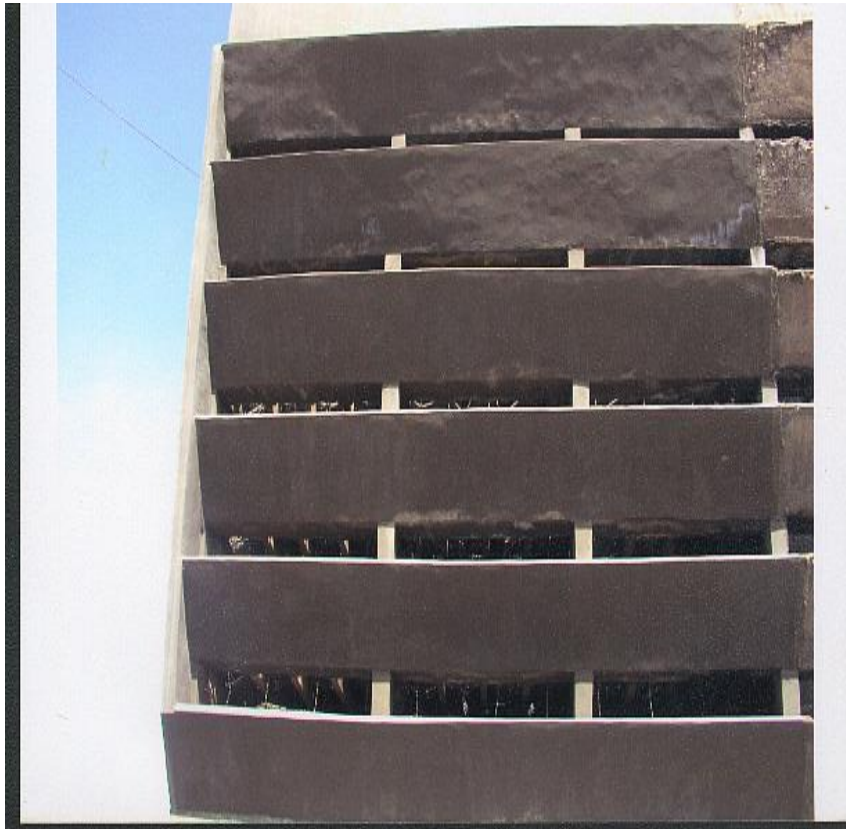












# CARBON FIBER and CARBON STRIPS



# CARBON FIBER and CARBON STRIPS



# Joint Sealant



## Berseal PU 501

- 2- components part gun grade/ pouring grade low module Polyurethane sealant, which cure at room temperature.
- High performance polyurethane sealant.
- Excellent weather resistance during storage/ logistics.
- Highly durable.
- Excellent adhesive to concrete surface as well as brick, steel, glass, aluminum and wood.

# Joint Sealant



# Concrete Road Joint



# BERDERMIX (Epoxy Injection)

- Two Component Solvent free, low viscosity, modified epoxy Injection Material.
- A Crack injection compound for cracks .

# Epoxy Injection

Step 1 (Chisel The Point)



Step 2 (Make the Point)



### Step3 (Final Injection)



### Step4 (Cut the Cooper pipe and Repair the Nipple)



*THANK YOU*