



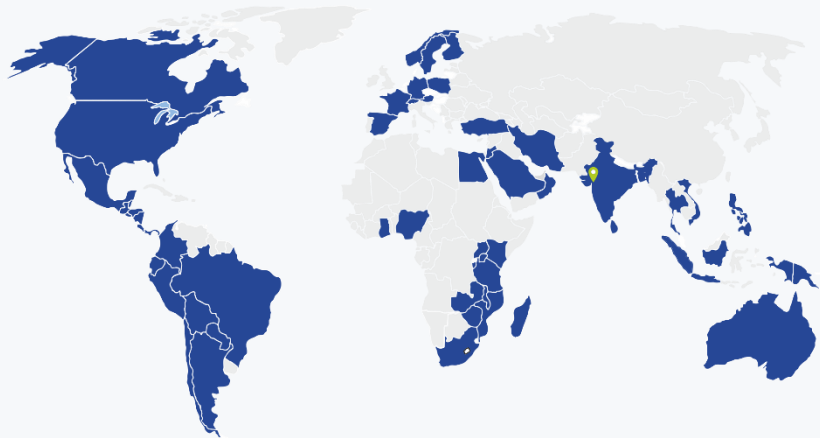
Ultra-Durable Solutions





Founded in 1997

Sales in over 40 countries



Zydex is a specialty chemicals company with the purpose of innovating to create a sustainable world through conservation of resources

We are pioneers in various non-polluting, non-hazardous and durable technologies



25 Most Innovative Companies of India



&



Certified Company

Confidential Information

**Conserving limited
resources
through innovation,
for a sustainable world**



Business Portfolio

Roads



Agriculture



Paints & Waterproofing



Textiles



Global Leadership In Materials & Innovation



F1 Track
Las Vegas

Key to Sustainable Buildings



Ultra-durability



Long-lasting aesthetics

Water Induced Damages

Aesthetic Damages



Paint peel off



Paint blistering



Algae / Fungus

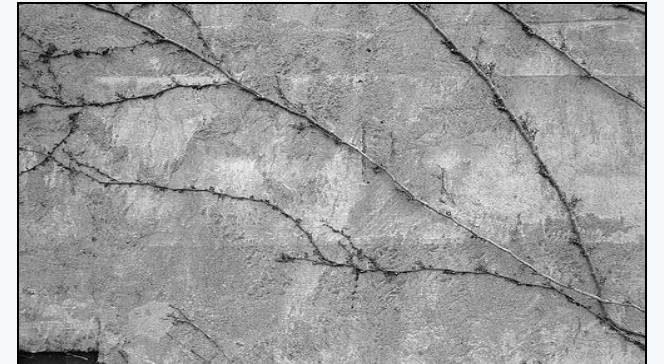
Structural Damages



Concrete ageing

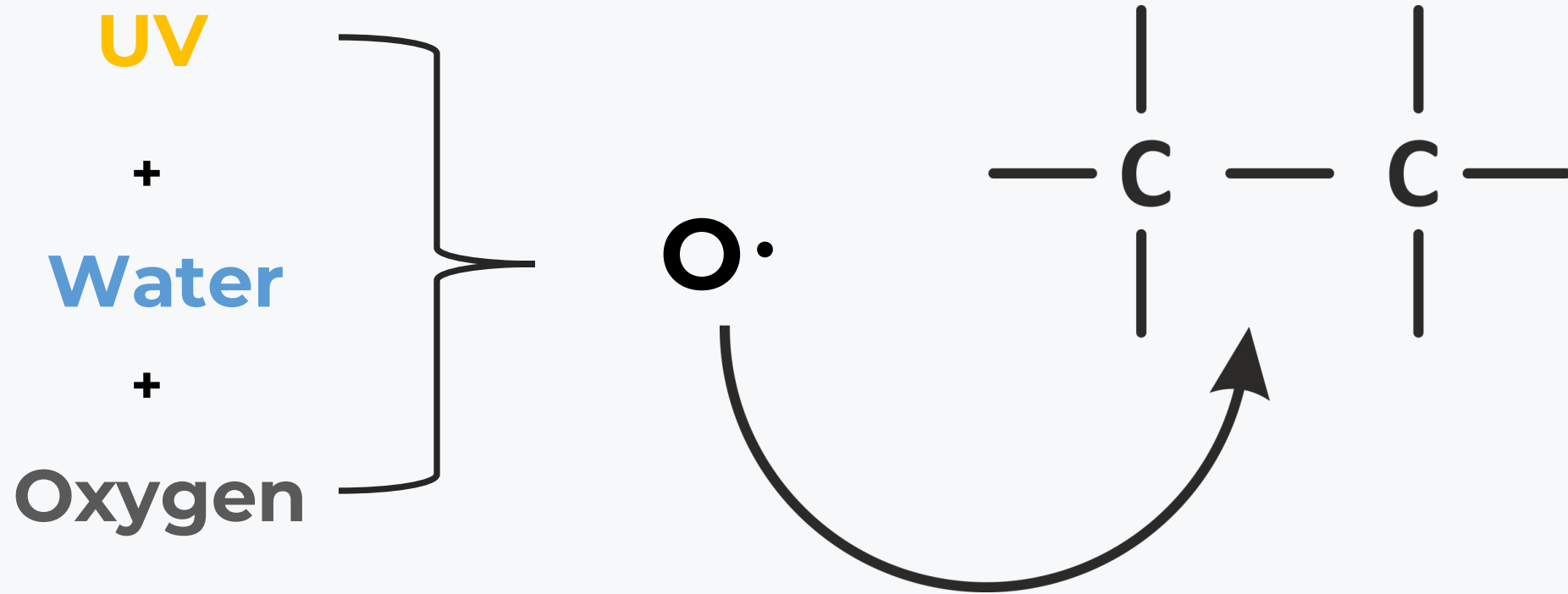


Rebar corrosion



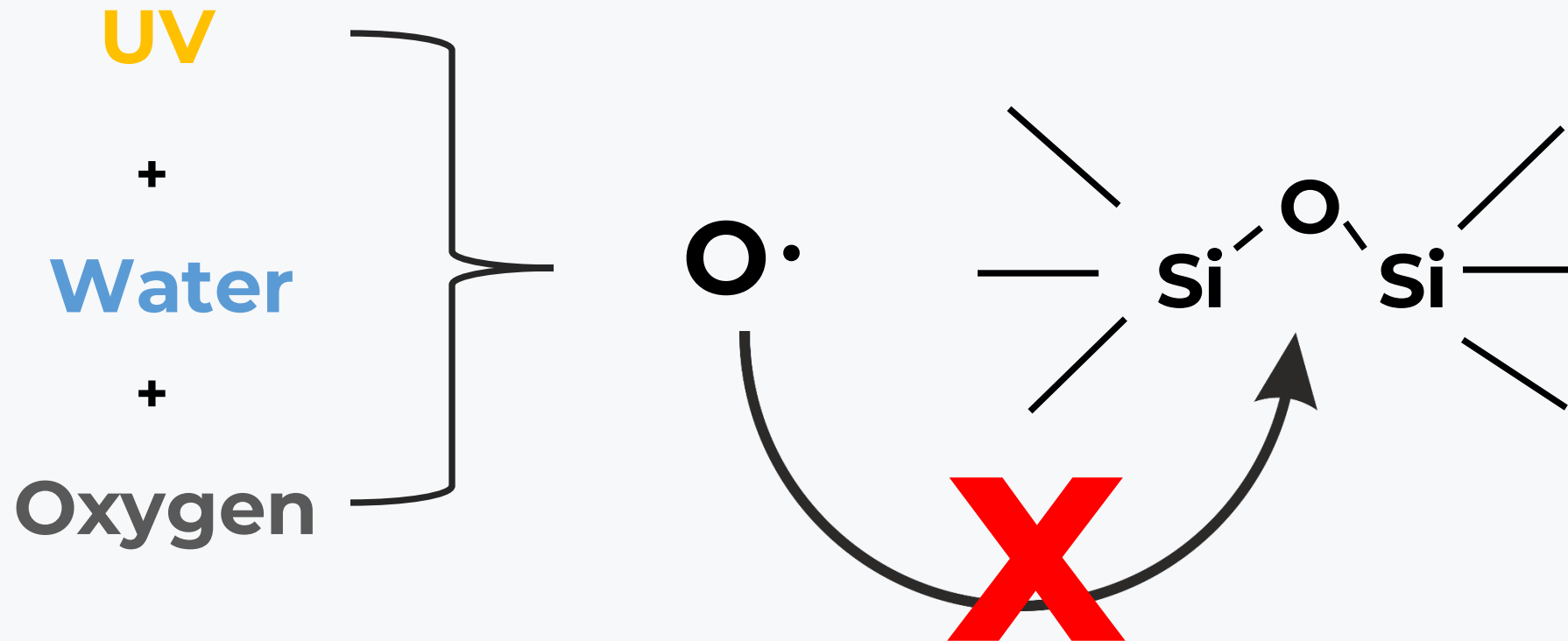
ASR induced cracks

Why Current Paint & Waterproofing Technologies are Inadequate?



Carbon based polymers C-C bond is fundamentally susceptible to attack by oxygen in the presence of UV & water

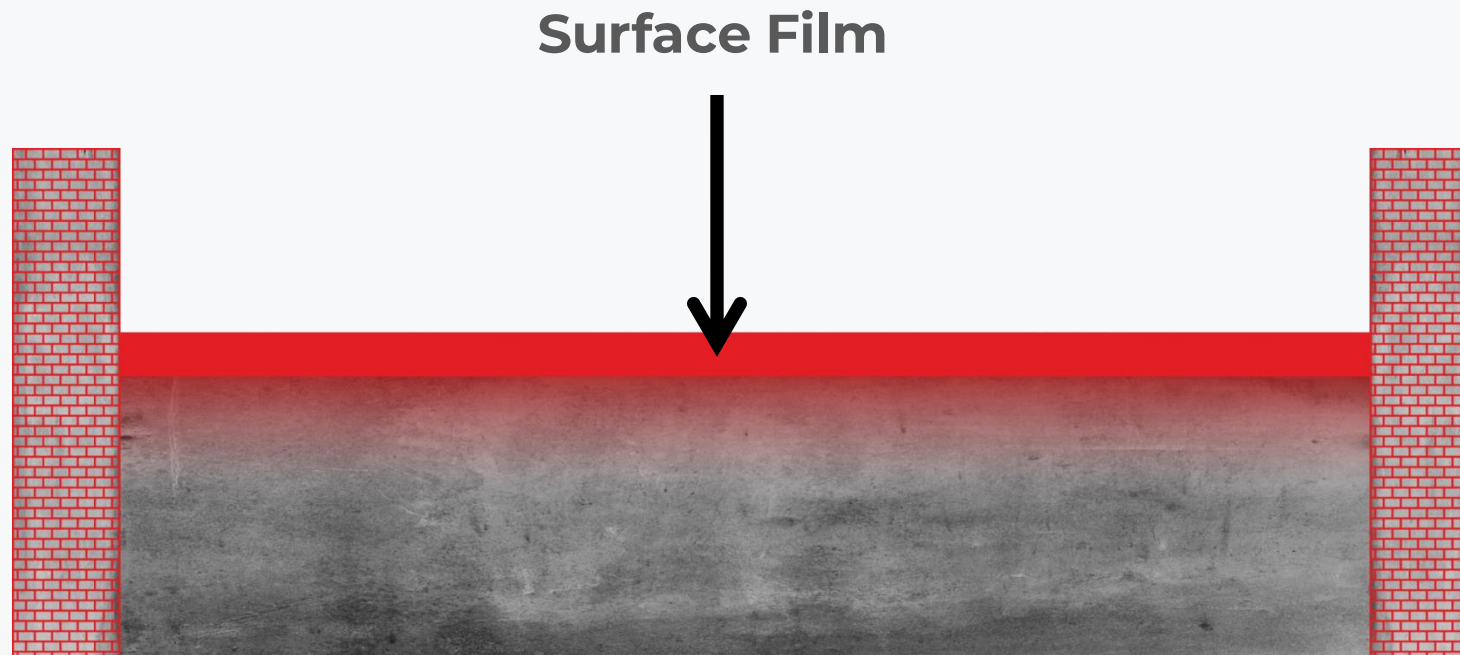
Ultradurable Chemistry 'The **Si-O-Si** Bond'



The strongest bond found in naturally abundant materials like sand, stone & ceramics

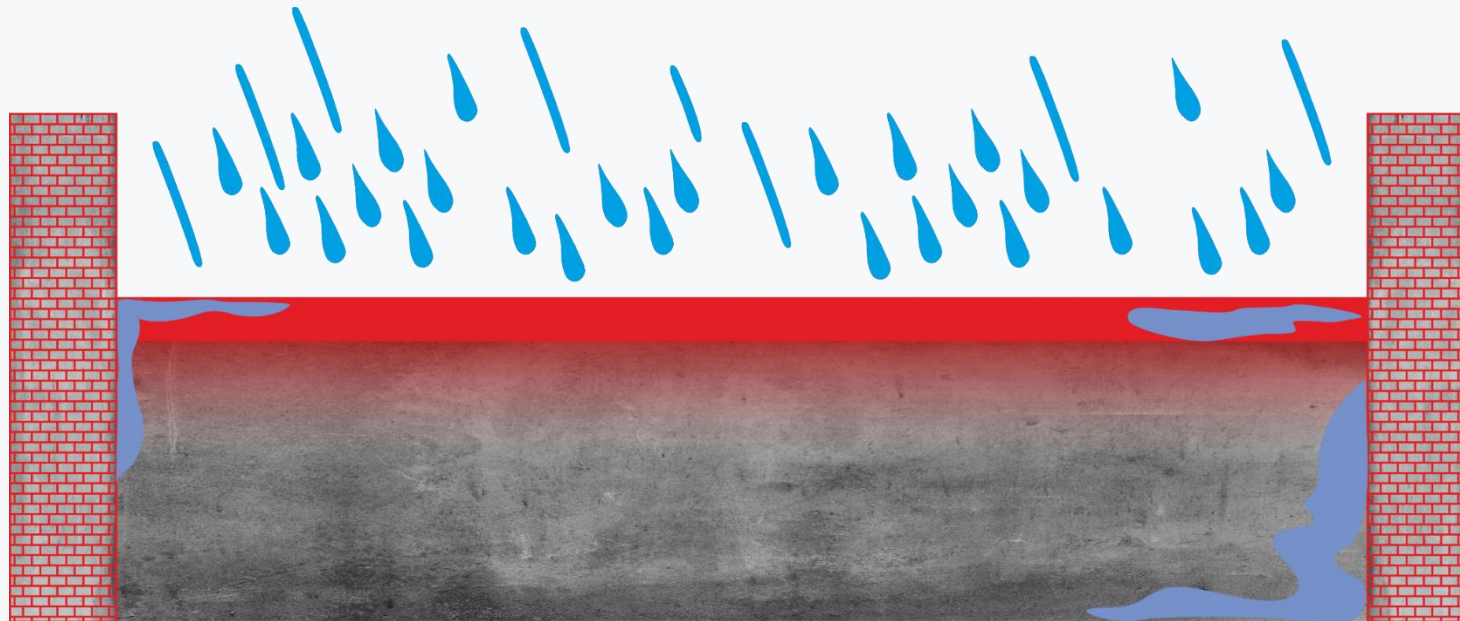
Typical Failure Mode of Membranes

Commonly used membranes form a surface film



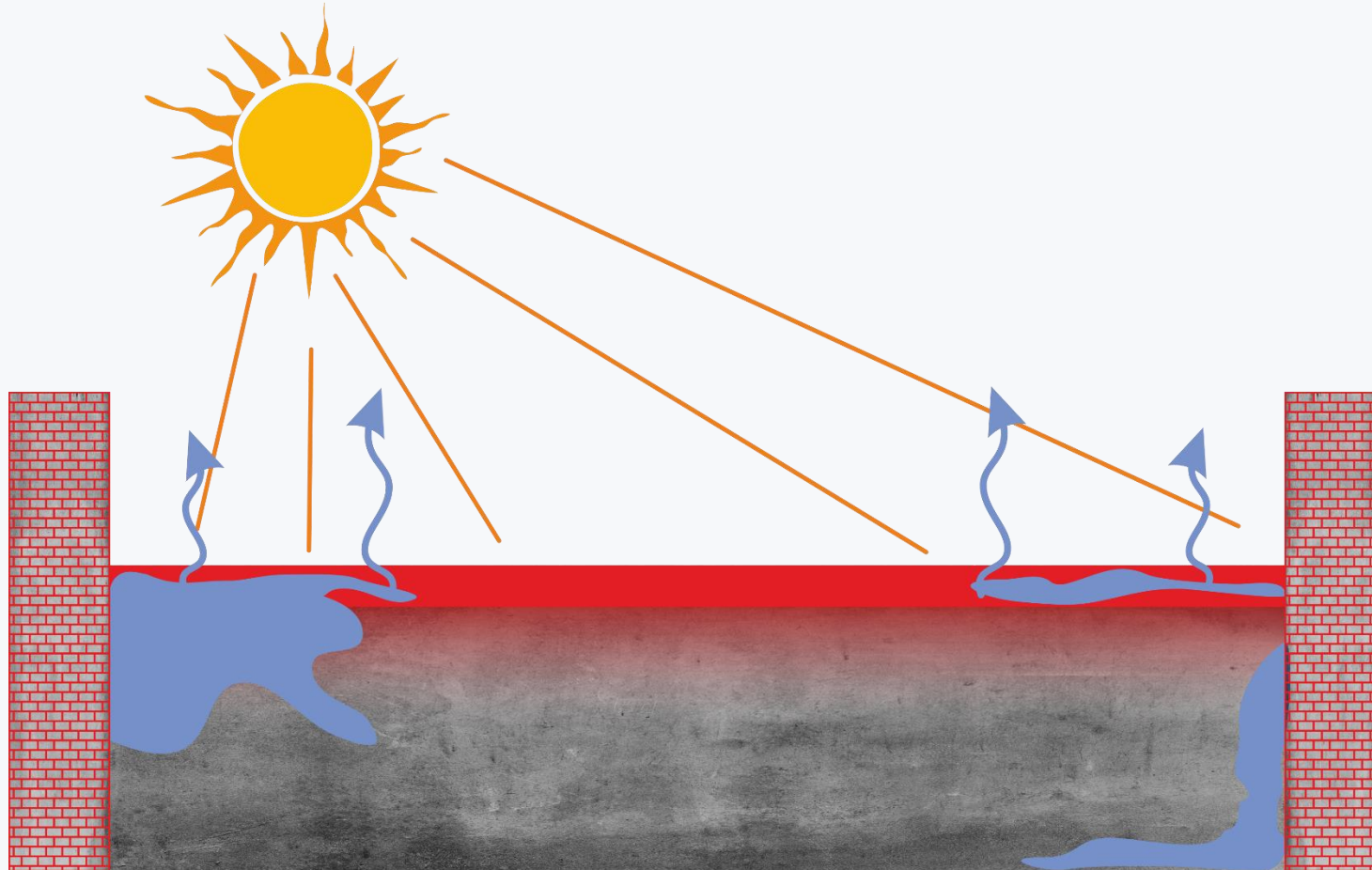
Typical Failure Mode of Membranes

Cracking and peeling off of the film due to heat and UV degradation



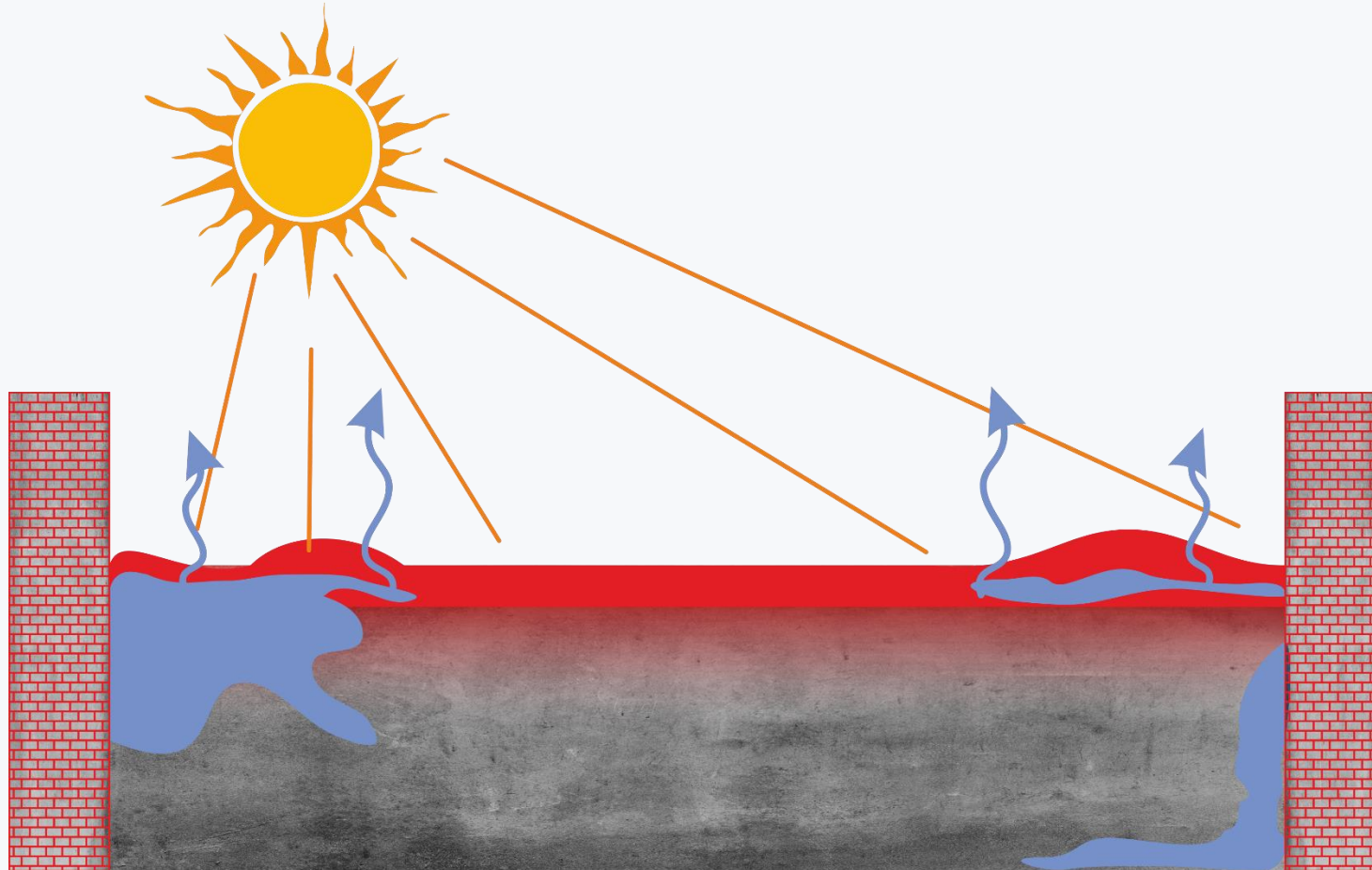
Typical Failure Mode of Membranes

Cracking and peeling off of the film due to heat and UV degradation



Typical Failure Mode of Membranes

Cracking and peeling off of the film due to heat and UV degradation



Typical Failure Mode of Membranes

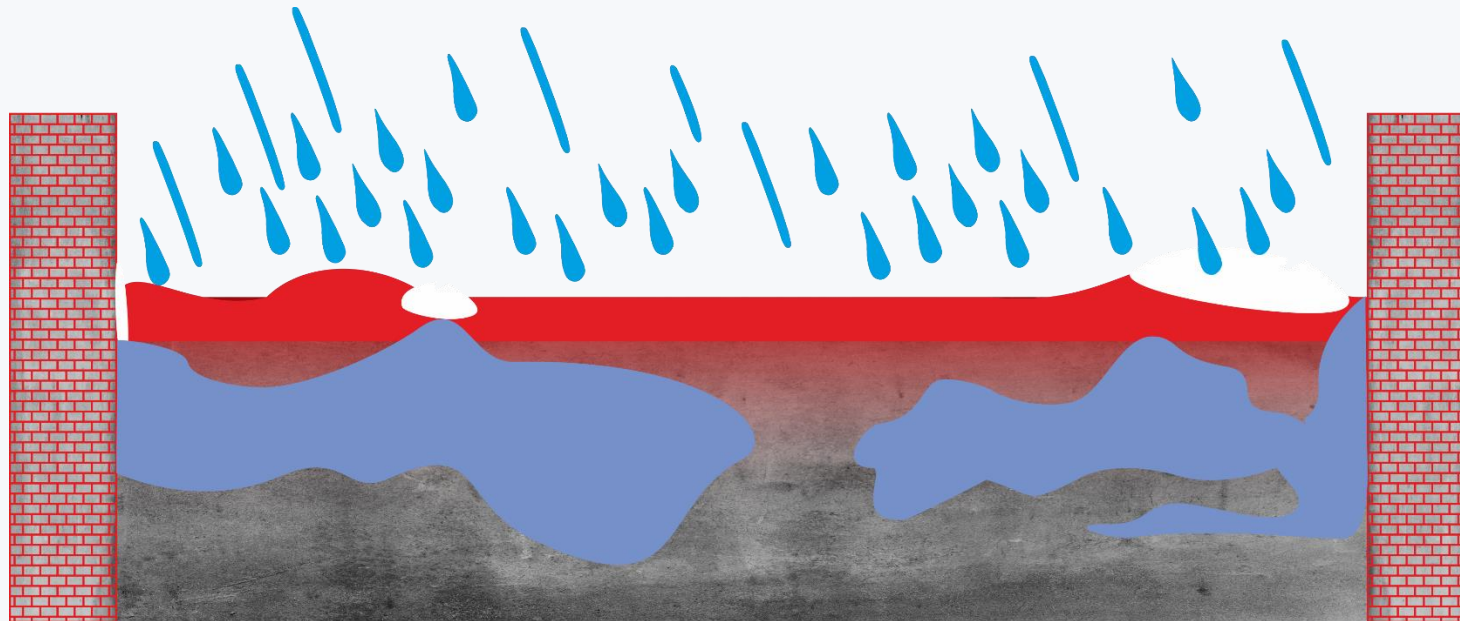
Cracking and peeling off of the film due to heat and UV degradation

Representative damage : 1 – 3 years



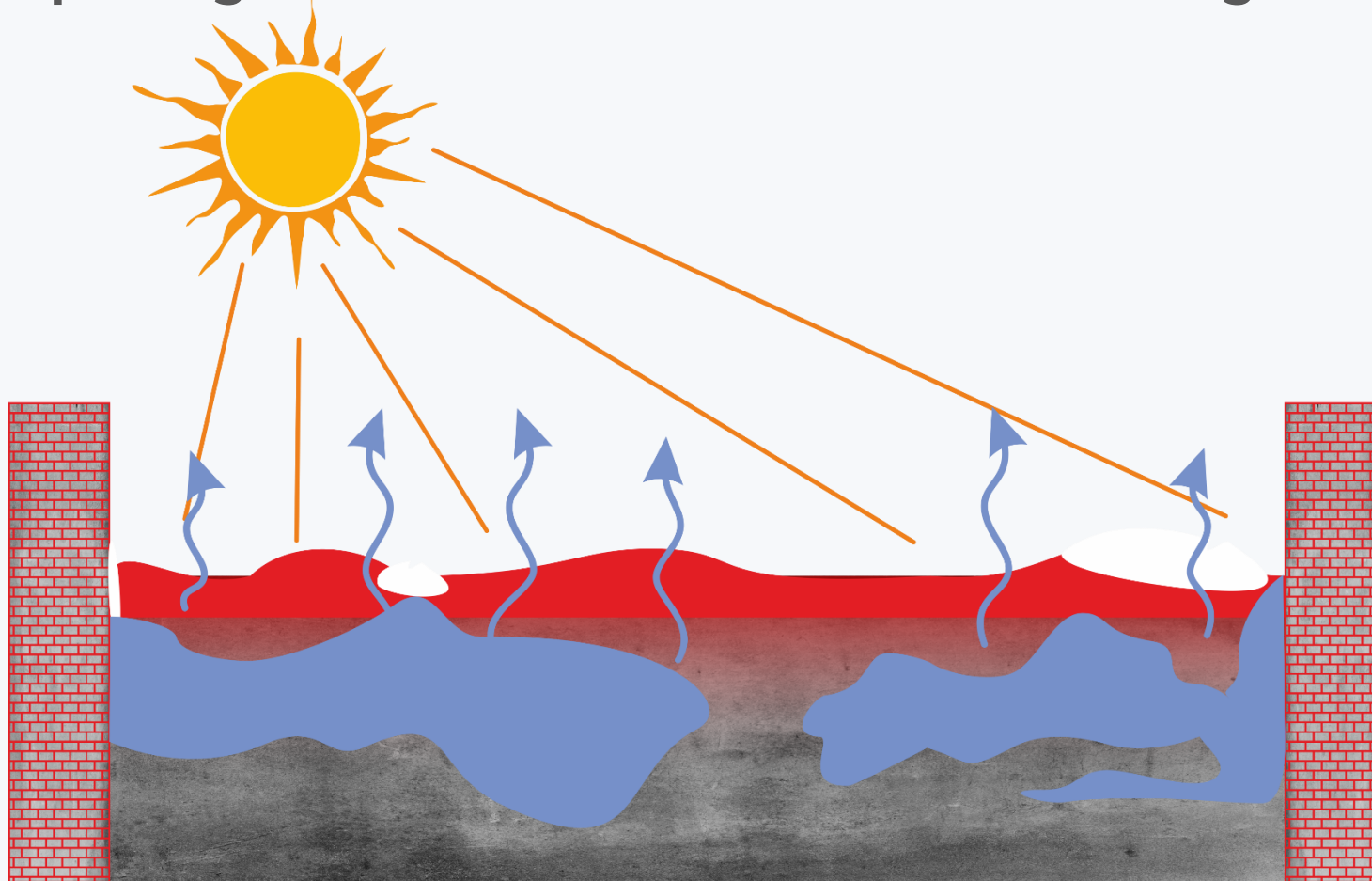
Typical Failure Mode of Membranes

Cracking and peeling off of the film due to heat and UV degradation



Typical Failure Mode of Membranes

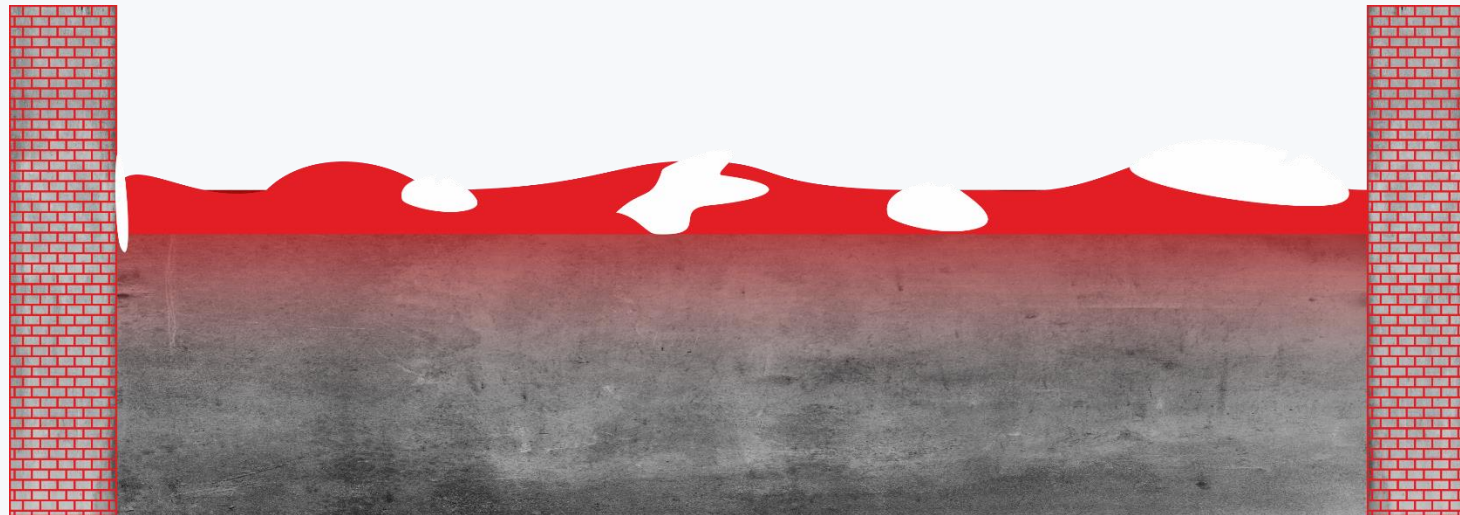
Cracking and peeling off of the film due to heat and UV degradation



Typical Failure Mode of Membranes

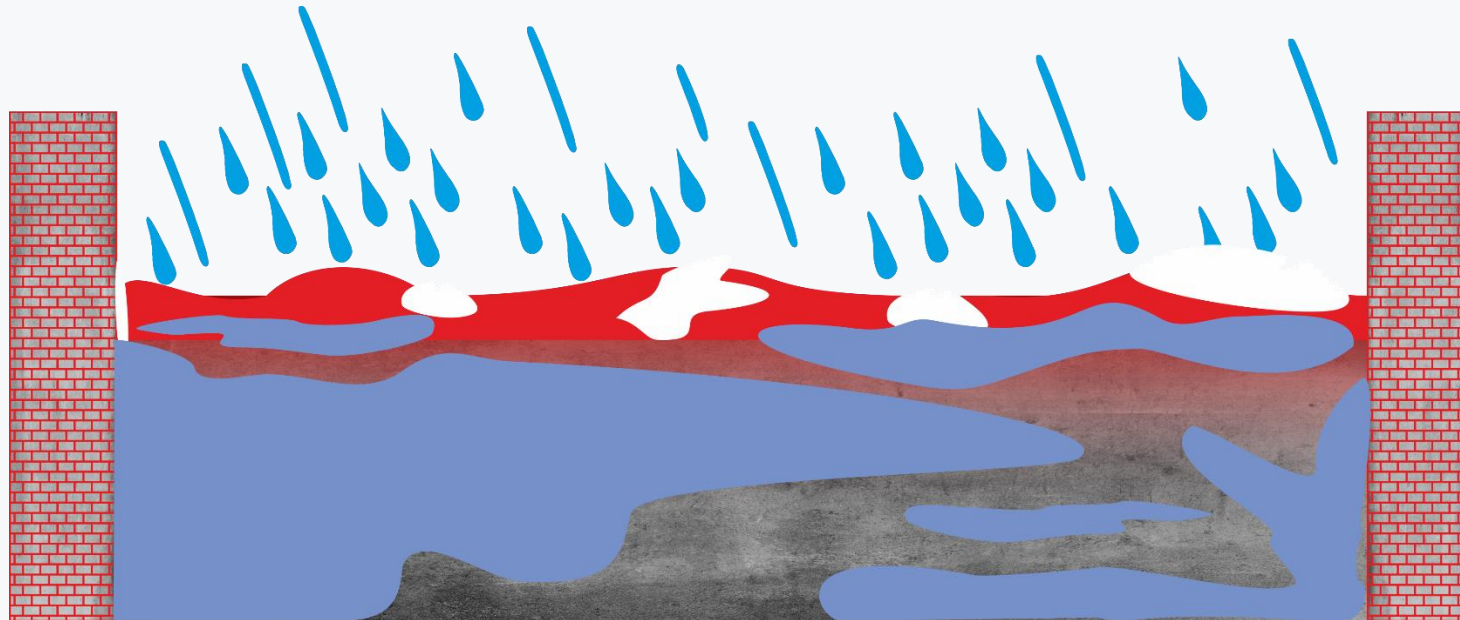
Cracking and peeling off of the film due to heat and UV degradation

Representative damage : 3 – 5 years



Typical Failure Mode of Membranes

Cracking and peeling off of the film due to heat and UV degradation



Waterproofing Solutions from Zydex



Highly Penetrative Waterproofing

New generation Organosilane
Reactive waterproofing
technology



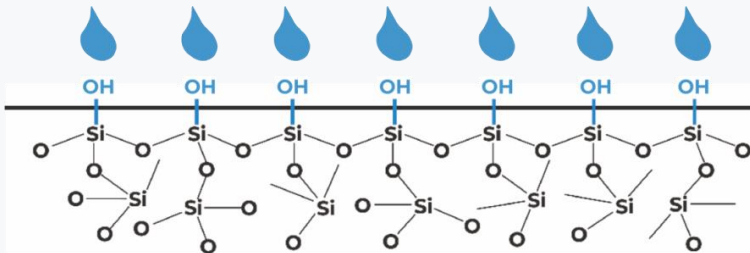
Nano Acrylic Sealer & Bonder

Nano acrylic co-polymer
sealer & bonding agent

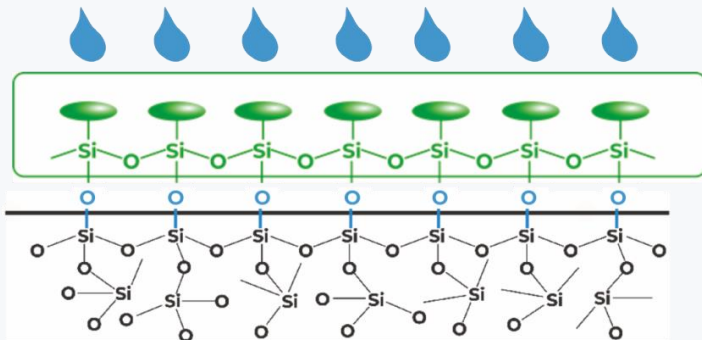
The Zycosil Advantage



Siliceous surface



Zycosil Max treated siliceous surface



- OH groups make surface very hydrophilic (water loving)

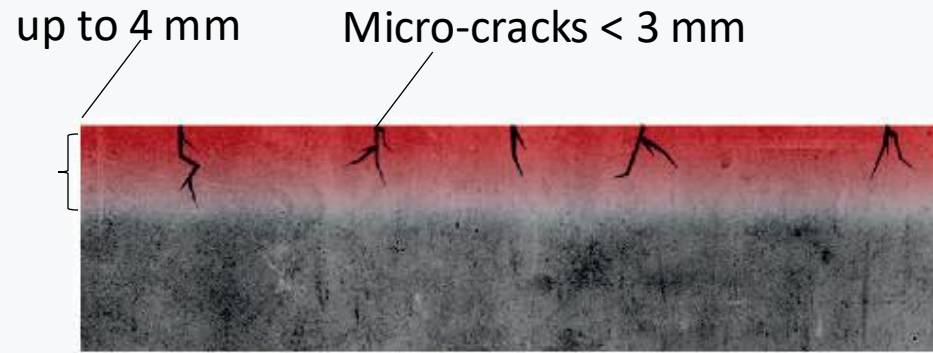
High water permeability leads to water ingress in the building through seepage and deterioration of the plaster/ concrete substrate

- Molecular level reaction (hydrophobic groups)

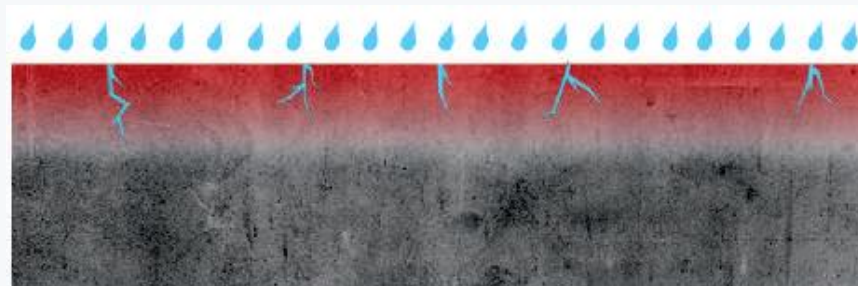
Zycosil Max reacts upon contact with the surface and creates a permanently water repellent layer on its surface. The surface is subsequently rendered impermeable to water ingress

The Zycosil Max Advantage

Zycosil Max treated siliceous surface



Siliceous surface

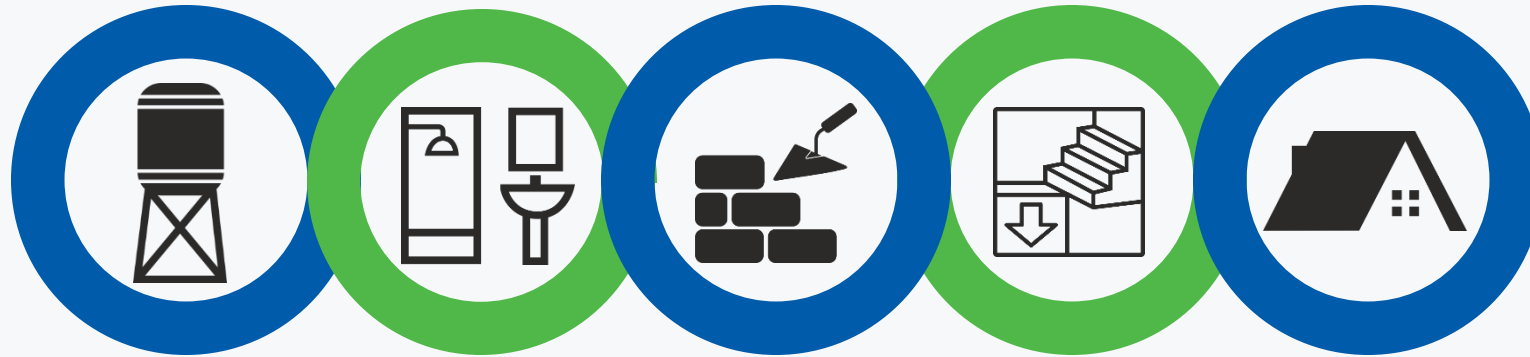


Zycosil Max treated siliceous surface

Note: Zycobond Max solution (1:1 in water) is to be applied wet-on-wet on Zycosil Max treated surface to ensure sealing of larger pores.

Zycobond Max provides excellent bonding to any subsequent coating or screeding work following Zycosil Max treatment

Application Areas



Water tank

Bathroom

Foundation

Basement

Roofs

Water Proofing Portfolio

ZYCOSIL **MAX**
PENETRATIVE WATERPROOFING

ZYCOBOND **MAX**

ELASTOMAX
WHITE STRETCHABLE MEMBRANE

ZYCRETE 2X
NEXT GENERATION

Cold  **Bond**

ZycoFix

ZYCOSIL **+**
PENETRATIVE WATERPROOFING

ZYC  **PRIME** **+**
ACRYLIC SEALER & BONDER

Seal-it 

ELASTOBAR
STRETCHABLE CRACK BRIDGING MEMBRANE

Failure Mode of Acrylic Paints

UV degradation

- Acrylic binders are organic in nature and thus degrade in UV sunlight
- They weather due to their fundamentally organic nature and thus do not last more than 7-10 years





Failure Mode of Acrylic Paints

Fading

- Organic pigments
- As a result these paints are prone to discoloration due to fading on account of degradation due to weathering

Failure Mode of Acrylic Paints

Not Breathable

- Organic paints are not breathable
- Acts as a barrier to trap dangerous moisture build-up underneath
- They are prone to blistering from vapor pressure underneath during drying process
- Since they are not fast drying, organic paint are prone to algal and fungal attacks





ULTRA DURABLE SILICATE MINERAL PAINT

INSPIRED BY THE PAST
DESIGNED FOR THE FUTURE

The Mineral Nature of Paint

- Uses POTASSIUM SILICATE as the main binder instead of organic polymers
- Potassium Silicate is silica sand that has been chemically dissolved in water
- Binder is completely stable to UV, weathering, pollution and lasts for **DECADES !**



The Mineral Edge : DURABILITY



Acrylic coatings form a surface film on the surface which bonds only through mechanical adhesion



Zydex mineral paints penetrate into the substrate and form an inseparable chemical bond

- Penetrative Action of Binder
- No Peel-off !
- Pull of Adhesion ~ **4 N/mm²** !

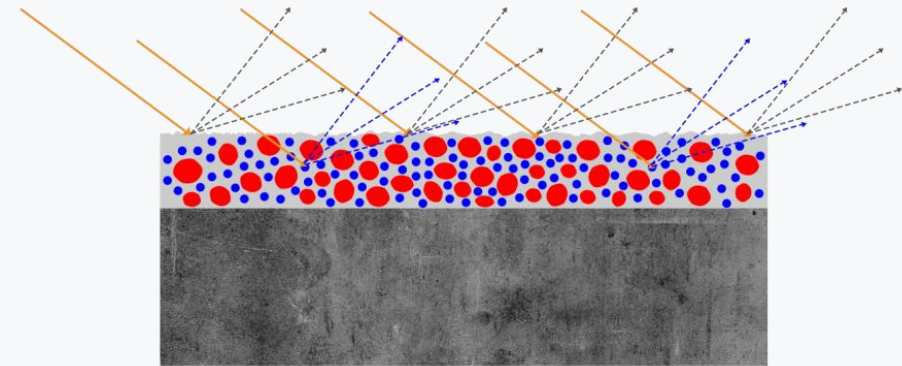
The Mineral Edge : FADE FREE

- Uses **EARTH METAL OXIDE** pigments
- Choose intense bright colors without fear of fading
- **No Fading for Decades!**

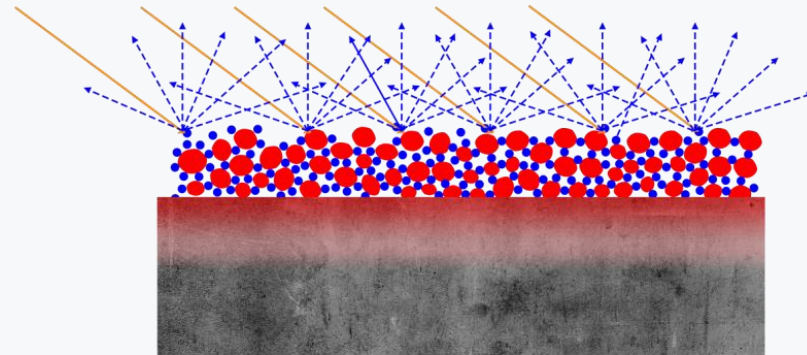


The Mineral Edge : BRILLIANCY

- Crystalline Binder for **BRILLIANT MATT** Finish !
- Does Not Lose Brilliancy With Time
- Mutes Surface Defects and Undulations
- Easy Touch Ups



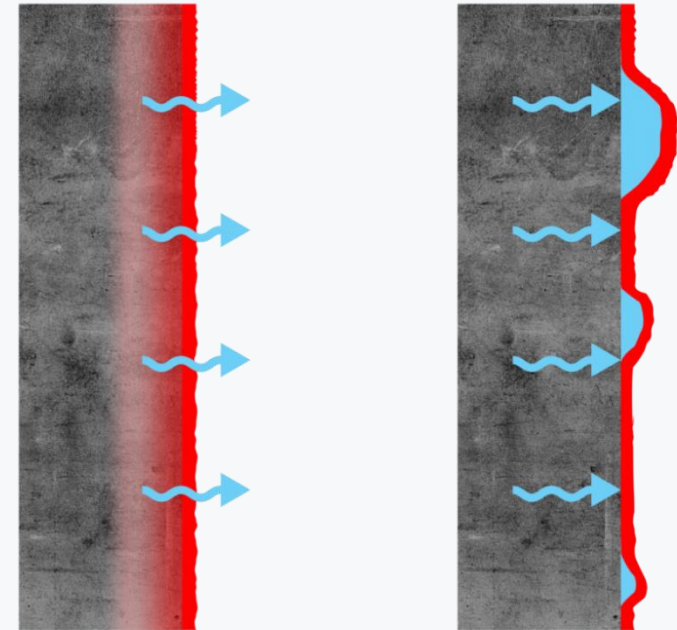
Lights at sharper angles reflects off the polymer coating without contacting the pigment, resulting in a dull look in acrylic paints



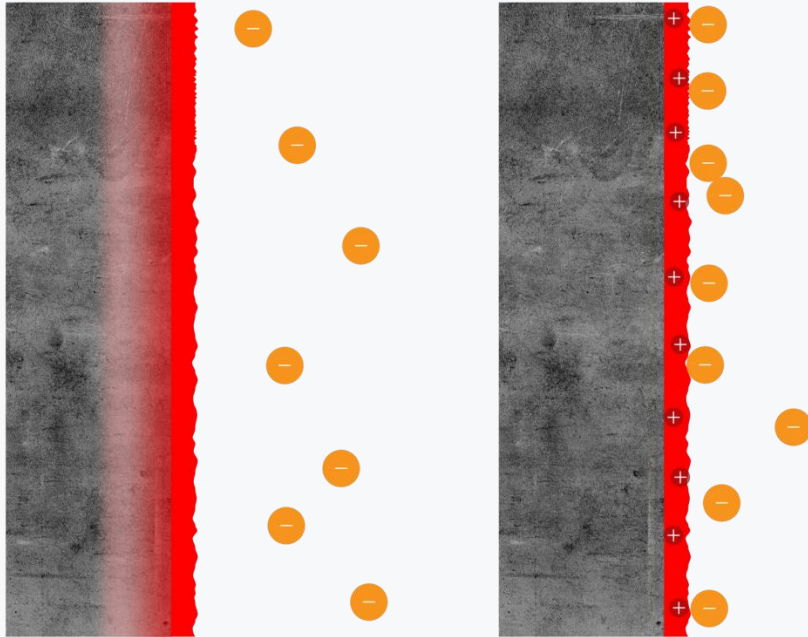
Zydex mineral paints penetrate into the substrate and form an inseparable chemical bond

The Mineral Edge : BREATHABILITY

- Unmatched Vapor Permeability!
- No Ingress of Rain Water
- **Sd ~ 0.03m**
- **W₂₄ value < 0.1 kg/(m²h^{0.5})**
- Quick Drying



The Mineral Edge : DIRT PICK-UP RESISTANCE



- Self-Cleaning Action
- Hard Stone-Like Surface
- Anti-Static
- **Extreme Dirt Pick-up Resistance !**

The Mineral Edge : FLAME & SCUFF RESISTANCE

- Low Organic Content Makes Them Highly **Flame Resistant**
- Highly Resistant to Burnishing and Scuff Marks!
- Natural Alkalinity Resists Algae and Fungus



The Mineral Edge : SUSTAINABILITY

- < 7 g VOC per L
- GreenPro Certified !
- **Odor Free Experience During and After Painting**



Shade Spectrum – Actual Shade Drawdowns

Custom Shades Available



Decorative Solutions from Zydex

Ultra Durable Mineral Paints for Facades and Interiors



