RIYA STONE
SPECIALITY CHEMICALS

TECHNICAL DATA SHEET
ESPLENDIDO SILAN STOP

ESPLENDIDO SILANSTOP™

INTERNAL MOISTURE CONTROL & ANTI-EFFLORESCENCE TREATMENT

STEP 1- INTERNAL PROTECTION

INTERNAL + EXTERNAL DUAL PROTECTION TECHNOLOGY

- REDUCES CAPILLARY MOISTURE MOVEMENT
- CONTROLS SALT MIGRATION & EFFLORESCENCE
- IMPROVES SUBSTRATE STABILITY BEFORE WATERPROOFING
- BREATHABLE NON-FILM FORMING
- HELPS MINIMIZE FUNGUS, ALGAE & MICROBIAL GROWTH
- DEEP PENETRATION INTO CAPILLARY PORE STRUCTURE

1. PRODUCT DESCRIPTION

Esplendido SilanStop™ is a high-performance, deep-penetrating moisture control and anti-efflorescence treatment engineered to address dampness, salt migration, and moisture-induced deterioration in mineral construction substrates such as cement, concrete, brick masonry, block work, screeds, and porous stone surfaces .

Unlike conventional water repellents that primarily function at the surface level. Esplendido SilanStop™ is designed to work within the substrate by penetrating into the capillary pore network responsible for internal moisture movement.

In practical construction conditions, moisture ingress commonly occurs through both vertical and horizontal surfaces. Internal walls are affected by capillary moisture movement, while terrace systems—particularly those finished with cement plaster, screed. china mosaic. cement tiles. or porous stone—allow water to penetrate through pores. joints, and micro-cracks.

Once moisture enters the substrate, dissolved salts travel through these capillary pathways and eventually deposit on the surface in the form of efflorescence. Continuous moisture and salt movement can lead to:

- Damp patches and seepage
- White salt deposits (efflorescence)
- Paint blistering and flaking
- Weakening of plaster and surface layers
- Fungus. algae, and microbial growth
- Premature waterproofing and coating failure

Esplendido SilanStop™ is engineered with advanced anti-Efflorensence and internal moisture-control technology designed to reduce capillary moisture movement and help minimize transport of dissolved salts within the substrate.

Upon application. the low-viscosity formulation penetrates deeply into absorbent mineral substrates through capillary absorption and diffusion. Within the substrate, the active components modify the internal pore structure and create hydrophobic conditions along the capillary walls.

This internal modification helps:
- ✓ Reduce capillary water absorption
- ✓ Control internal moisture migration
- ✓ Restrict dissolved salt transport
- ✓ Minimize recurring efflorescence formation
- ✓ Improve substrate stability prior to waterproofing or coating application

Because moisture activity within the substrate is reduced, the conditions that support fungus, algae, and microbial growth are also minimized.

In terrace and tiled systems, penetration occurs primarily through joints, grout lines, pores, and micro-capillary pathways enabling the system to work internally without necessarily removing existing finishes in many practical situation.

Esplendtdo SitanStop™ is a breathable non film forming system and does not create a heavy surface coating. The treated substrate remains vapour permeable while reducing liquid water ingress and internal moisture activity.

The product is not intended to function as a standalone waterproofing membrane. It acts as an advanced subtract stabilization and Internal moisture-control system, forming Step 1 of the Esplendido SilanStop™ Dual Protection System and is recommended to be followed by Esplendido SilanStop™ After Coat 2K System (Step 2) reinforced surface protection and long-term waterproofing performance.

IDEAL FOR

- INTERNAL & EXTERNAL WALLS
- TERRACE SYSTEMS (CEMENT PLASTER, SCREED, TILES, CHINA MOSAIC, CEMENT TILES, POROUS STONE)
- BRICK MASONRY & BLOCK WORK
- BATHROOMS. WET AREAS & SPACES
- BASEMENTS & FOUNDATIONS
- OLD BUILDINGS. HERITAGE STRUCTURES & POROUS STONE SURFACES

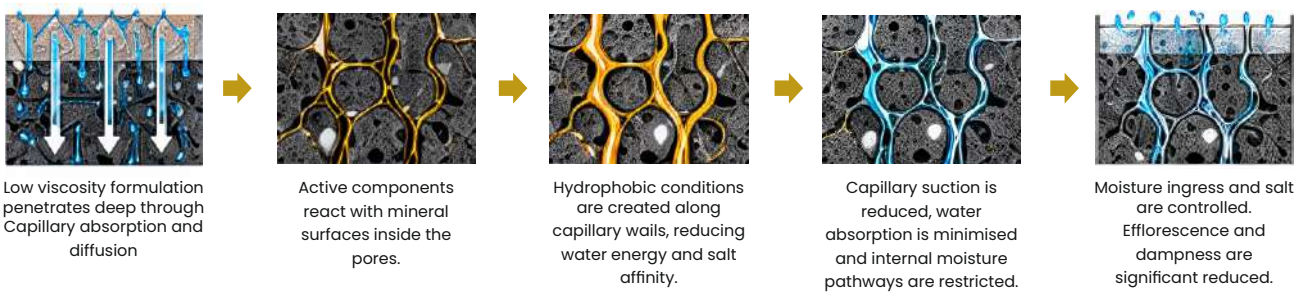
2. MECHANISM OF ACTION

The performance of Esplendido SilanStop™ is based on its ability to penetrate deeply into the capillary pore structure of mineral substrates and modify the internal pathways responsible for moisture and salt transport.

After application, the low-viscosity formulation is absorbed into the substrate through capillary action. The interconnected pore network within cementitious and masonry materials allows the system to penetrate into internal zones where moisture movement typically occurs.

Within the substrate, the active components react with mineral surfaces and form hydrophobic conditions along the internal capillary walls. This reduces the surface energy of the pores and alters the interaction between the substrate and water.

HOW IT WORKS



AS A RESULT

- Capillary suction forces are reduced
- Water absorption within the pore structure is Minimized
- Continuous moisture pathways are disrupted
- Internal transport of dissolved salts is restricted

THIS MECHANISM HELPS REDUCE

- Rising damp (upward moisture movement)
- Lateral moisture migration across walls and surfaces
- Water ingress through absorbent capillary pathways
- Salt deposition on the surface (efflorescence)

WORKS WITHIN THE SUBSTRATE

Unlike conventional surface-applied repellents that mainly reduce external wetting, Esplendido SilanStopTM works within the substrate itself to stabilize moisture behaviour internally.

- SCIENCE DRIVEN
- SITE PROVEN
- QUALITY ASSURED
- PERFORMANCE FOCUSED

Heavy Duty Construction Waterproofing Chemicals Manufacturer

ESPLENDIDO SILANSTOP™

INTERNAL MOISTURE CONTROL & ANTI-EFFLORESCENCE TREATMENT

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3. WHY THIS SYSTEM IS NECESSARY

Moisture-related failures in buildings are primarily caused by the movement of water and dissolved salts within the capillary pore structure of construction materials.
Cementitious and masonry substrates naturally contain interconnected pores through which moisture can enter and migrate internally. Moisture may originate from multiple sources, including:

- Rainwater exposure on external walls
- Terrace systems finished with cement plaster, screed, china mosaic, or tiles
- Leakage from bathrooms, wet areas, and utility spaces
- Ground moisture resulting in rising damp
- Water ingress through joints, pores, and micro-cracks

Once moisture enters the substrate, it continues traveling through these capillary pathways and carries dissolved salts toward the surface.
Over time, this leads to:

- Dampness and seepage
- Recurring efflorescence (white salt deposits)
- Paint blistering, flaking, and peeling
- Weakening of plaster and surface layers
- Fungus, algae, and microbial growth
- Premature failure of waterproofing systems

In many practical situations, conventional water repellents or surface waterproofing coatings may reduce surface wetting temporarily, but they often do not effectively control internal moisture movement or salt migration within the substrate.

As a result:

- ✕ Internal dampness may continue beneath coatings
- ✕ Waterproofing layers may lose adhesion
- ✕ Paint and putty systems may fail repeatedly
- ✕ Efflorescence may reappear over time

This is particularly common in terrace systems where waterproofing coatings are directly applied over moisture-active cementitious substrates without stabilizing the internal moisture behaviour first.

Esplendido SilanStop™ is designed specifically to address this underlying problem.
Instead of functioning only as a surface water repellent, the system works internally within the substrate to:

- ✓ Reduce capillary moisture movement
- ✓ Help minimize salt migration
- ✓ Stabilize substrate moisture behavior
- ✓ Reduce recurring efflorescence formation
- ✓ Improve substrate condition before waterproofing or coating application

This creates a more stable and reliable base for:

- Waterproofing systems
- PU and acrylic coatings
- Putty and paint systems
- Damp-proof coatings
- Terrace protection systems

When used as part of the Esplendido SilanStop™ Dual Protection System, the overall approach helps provide both:

STEP 1 — Internal Moisture & Salt Movement Control (Esplendido SilanStop™) → STEP 2 — Reinforced Surface Protection (Esplendido SilanStop™ After Coat 2K System)

This integrated system approach helps improve durability, adhesion, and long-term performance under practical site conditions compared to conventional surface-only treatments.

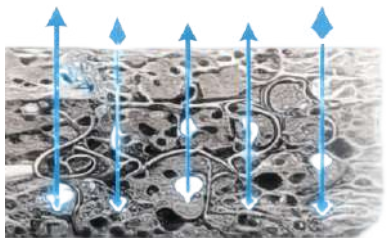
4. SYSTEM CONCEPT (DUAL PROTECTION SYSTEM)

Esplendido SilanStop™ is designed to function as part of a two-step integrated protection system developed to address both internal moisture activity and external surface exposure in mineral construction substrates.

Unlike conventional waterproofing approaches that mainly focus on surface-level protection, the Esplendido SilanStop™ Dual Protection System is engineered to stabilize the substrate internally before applying protective surface layers.

The complete system consists of:

STEP 1 – ESPLENDIDO SILANSTOP™
Internal Moisture Control & Anti-Efflorescence Layer



This stage focuses on controlling moisture and salt movement within the substrate itself.

The system:

- ✓ Penetrates deeply into the capillary pore network
- ✓ Reduces capillary water absorption
- ✓ Controls internal moisture migration
- ✓ Helps minimize dissolved salt transport
- ✓ Reduces recurring efflorescence formation
- ✓ Stabilizes the substrate before surface coating application

By controlling moisture activity internally, the system helps reduce conditions responsible for dampness, coating failure, fungus growth, and long-term substrate deterioration.

STEP 2 – Esplendido SilanStop™ After Coat 2K System
Reinforced Surface Protection Layer

After internal moisture stabilization, the second stage provides reinforced surface protection.

This system:

- ✓ Forms a continuous protective coating layer
- ✓ Provides crack-bridging capability for minor non-structural cracks
- ✓ Reduces ingress of external water
- ✓ Enhances surface durability and integrity
- ✓ Creates a stable base for finishing and waterproofing systems

APPLICATION APPROACH BASED ON USE CASE

TERRACE APPLICATIONS

In terrace systems, moisture often travels internally through cement plaster, screed, joints, and micro-cracks even after waterproofing coatings are applied

The recommended system sequence is:

Esplendido SilanStop™ → **SilanStop™ After Coat 2K System** → **PU / Acrylic Waterproofing**

- ✓ Stabilize moisture-active substrates.
- ✓ Improve adhesion of waterproofing coatings
- ✓ Reduce risk of blistering and coating debonding.
- ✓ Improve durability of terrace waterproofing systems.
- ✓ Reduce recurrence of leakage-related failures.

The system is particularly effective for:

- ·Cement plastered terraces
- Screed-based terrace systems
- China mosaic terraces
- Cement tile and joint-based systems
- ·Moisture-affected roof slabs

INTERIOR WALL APPLICATIONS

For dampness-affected walls and efflorescence-prone surfaces:

Esplendido SilanStop™ → **SilanStop™ After Coat 2K System** → **Putty / Paint**

This integrated approach helps:

- ✓ Stabilize internal moisture behaviour
- ✓ Reduce recurring damp patches and salt deposits
- ✓ Improve adhesion of putty and paint systems
- ✓ Enhance durability of finishing layers

COMBINED SYSTEM PERFORMANCE

When both stages are used together:

- ✓ Internal moisture movement is controlled at substrate level
- ✓ Salt migration and efflorescence formation are minimized
- ✓ Surface protection and substrate stability are improved
- ✓ Waterproofing and coating systems perform more reliably
- ✓ Long-term durability under practical site conditions is enhanced

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5. KEY PERFORMANCE FEATURES

- Deep penetrating internal moisture-control system
- Advanced anti-efflorescence technology
- Helps minimize internal salt migration and white salt deposits
- Reduces capillary water absorption within mineral substrates
- Controls internal moisture movement through capillary pores
- Breathable non-film-forming technology
- Helps reduce conditions favourable for fungus, algae, and microbial growth
- Stabilizes substrate before waterproofing and coating application
- Improves adhesion and durability of paint, putty, and waterproofing systems
- Suitable for vertical and horizontal surfaces
- Effective for damp walls, terraces, screeds, and joint-based systems
- Helps reduce recurring coating failure caused by hidden internal moisture
- Supports improved long-term waterproofing performance
- Compatible with PU and acrylic waterproofing systems
- Designed as Step 1 of the Esplendido SilanStop™ Dual Protection System

6. ANTI-EFFLORESCENCE TECHNOLOGY & MOISTURE CONTROL MECHANISM

One of the major causes of dampness-related deterioration in buildings is the movement of dissolved salts through the capillary pore structure of cementitious and masonry substrates.

When water enters plaster, concrete, screed, or masonry surfaces, it dissolves naturally occurring salts present within the substrate. As this moisture travels toward the surface through capillary pathways, it carries these salts along with it.

After evaporation of water, the salts remain on the surface in the form of:

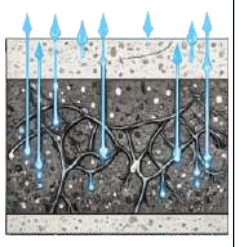
- White powder deposits
- Efflorescence staining
- Surface discoloration
- Paint blistering and flaking
- ·Weakening of surface layers

In many practical situations, conventional water repellents may reduce surface wetting temporarily, but they often do not effectively control internal salt migration or moisture activity within the substrate.

Esplendido SilanStop™ is engineered with advanced anti-efflorescence and internal moisture-control technology specifically designed to address this problem internally rather than only at the surface.

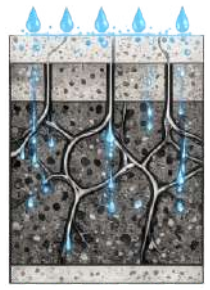
HOW THE SYSTEM WORKS

- ✓ The low-viscosity formulation penetrates deeply into the capillary pore network
- ✓ Active components modify the internal pore structure
- ✓ Hydrophobic conditions develop along capillary walls
- ✓ Capillary moisture movement is reduced
- ✓ Dissolved salt transport pathways become restricted



AS A RESULT

- ✓ Internal moisture activity decreases
- ✓ Salt migration toward the surface is minimized
- ✓ Recurring efflorescence formation is significantly reduced
- ✓ Substrate stability improves



BENEFITS OF ANTI-EFFLORESCENCE TECHNOLOGY

The anti-efflorescence mechanism helps provide:

Reduced White Salt Deposits
Minimizes recurring surface efflorescence caused by moisture-driven salt transport.

Improved Paint & Coating Durability
Reduced salt pressure helps minimize blistering, peeling, and flaking of coatings.

Better Waterproofing Performance
Stabilized substrates improve reliability of PU, acrylic, and other waterproofing systems.

Reduced Dampness-Related Deterioration
Helps reduce long-term substrate weakening caused by continuous moisture activity.

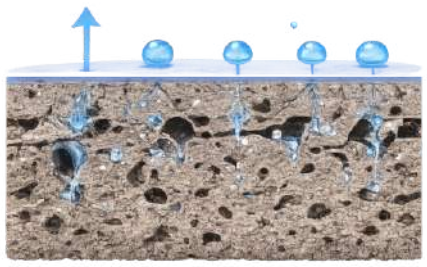
Improved Surface Appearance
Reduces staining, discoloration, and recurring damp patches.

Reduced Fungus & Algae Growth Conditions
Because internal moisture activity is minimized, conditions favourable for fungus, algae, and microbial growth are also reduced.

WHY THIS TECHNOLOGY IS DIFFERENT

Unlike conventional water repellents that mainly provide surface-level water beading, Esplendido SilanStop™ is engineered to work within the substrate itself.

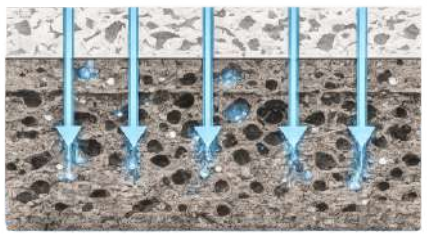
CONVENTIONAL SURFACE REPELLENTS
(Surface Level Protection Only)



Water beads on the surface and does not penetrate

VS

ESPLENDIDO SILANSTOP™
(Internal Moisture Control)



Penetrates deep into substrate and controls moisture from within.

The system is designed not only to reduce water ingress, but also to:

- ✓ Control internal moisture movement
- ✓ Help minimize salt migration
- ✓ Stabilize capillary moisture behavior
- ✓ Improve long-term substrate performance

This makes Esplendido SilanStop™ a premium moisture-control and substrate stabilization system rather than a basic surface water repellent treatment.

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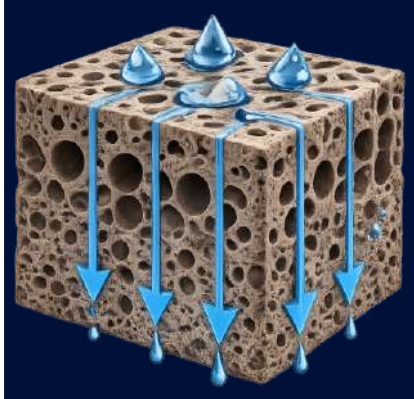
7. DIFFERENCE BETWEEN CONVENTIONAL WATER REPELLENT & ESPLENDIDO SILANSTOPTM SYSTEM

Conventional water repellents are generally designed to reduce surface wetting by creating a water-repellent effect on the outer surface Of the substrate. While such treatments may temporarily reduce water absorption from external exposure, they often do not effectively control internal moisture movement or dissolved salt migration within the substrate. Esplendido SilanStop™ on the other hand, is engineered as an advanced internal moisture-control and anti-efflorescence system designed to work within the capillary pore structure of the substrate itself.

S.N	Parameter	Conventional Water Repellent	Esplendido SilanStop™ System
1.	Working Principle	Mainly surface level water repellency	Significant reduction in capillary water absorption compared to untreated substrate
2.	Depth of Action	Surface or near-surface treatment	Deep capillary pore penetration within substrate
3.	Moisture Control	Limited control over internal moisture	Controls internal capillary moisture movement
4.	Water Ingress Protection	Mainly reduces surface wetting	Reduces external water ingress and internal moisture migration
5.	Anti Efflorescence Performance	Limited or indirect	Advanced anti-efflorescence technology helps minimize salt migration
6.	Soft Movement Control	Dissolved salts may still migrate internally	Helps restrict dissolved salt transport within substrate
7.	Efflorescence Formation	White salt deposits may reappear	Helps significantly reduce recurring efflorescence
8.	Paint & Coating Durability	Internal salt pressure may still damage coatings	Reduced salt migration helps improve coating durability
9.	Fungus & Algae Growth Conditions	Dampness may continue internally	Reduced moisture activity helps minimize growth conditions
10.	Breathability	Depends on product type	Breathable non-film-forming system
11.	Surface Film Formation	Some systems form surface film	Non-film-forming internal treatment
12.	Terrace Waterproofing Support	Mainly surface-level protection	Advanced substrate preparation before waterproofing
13.	PU / Acrylic Coating Compatibility	Internal substrate instability may remain	Improves adhesion and performance of waterproofing systems
14.	Long-Term Reliability	Depends heavily on surface condition	Designed for long-term moisture stabilization
15.	System Structure	Single-stage treatment	Dual Protection System
16.	Technology Positioning	Basic water repellency solution	Premium moisture-control & substrate stabilization system

WHY ESPLENDIDO SILANSTOP™ IS TECHNICALLY DIFFERENT

Unlike conventional water repellents that only reduce surface wetting, Esplendido SilanStop™ is specially engineered to target the root causes of moisture-related damage deep within the substrate itself.



The system help:

- ☑ Control internal moisture migration
- ☑ Restrict dissolved salt movement
- ☑ Minimize recurring efflorescence formation
- ☑ Improve substrate stability before waterproofing & coating application
- ☑ Reduce conditions favorable for fungus, algae & microbial growth

8. TECHNICAL CHARACTERISTICS

Esplendido SilanStop™ is formulated as a low-viscosity penetrating liquid designed for deep absorption into mineral substrates and internal modification of capillary moisture pathways.

8.1 PHYSICAL PROPERTIES

Appearance :	Clear to slightly hazy liquid
Colour :	Colourless
Odour :	Mild characteristic
Density :	Approx. 1.00 – 1.05 g/cm³
Viscosity :	Low (optimized for deep penetration)
pH Value :	Mildly acidic range

8.2 FUNCTIONAL CHARACTERISTICS

- Deep penetrating moisture-control system
- Advanced anti-efflorescence technology
- Non-film-forming breathable treatment
- Designed for capillary pore penetration
- Reduces capillary water absorption
- Helps minimize internal salt migration
- Maintains vapour permeability
- Does not significantly alter substrate appearance
- Helps improve substrate stability prior to coating application

8.3 PERFORMANCE-ORIENTED CHARACTERISTICS

- Internal moisture stabilization capability
- Reduction in recurring dampness behaviour
- Improved compatibility with waterproofing systems
- Enhanced substrate conditioning before putty and paint application
- Suitable for vertical and horizontal applications

8.3 COMPATIBILITY

Compatible with:

- ✓ Cement plaster and concrete substrates
- ✓ Brick masonry and block work
- ✓ Cement-based screeds and renders
- ✓ China mosaic and cement tile systems
- ✓ PU waterproofing systems
- ✓ Acrylic waterproofing coatings
- ✓ Putty and paint systems
- ✓ Esplendido SilanStop™ After Coat 2K System

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9. PERFORMANCE & TEST METHODS

Esplendido SilanStop™ has been evaluated using relevant international standards and recognized laboratory as well as field-simulated test methods to assess its performance in terms of moisture control, capillary absorption, anti-efflorescence behaviour, penetration capability, durability, and compatibility with cementitious substrates and coating systems.

9.1 PERFORMANCE TEST SUMMARY

S.N	Test Parameter	Test Method / Standard	Result Summary
1.	Water Absorption (Capillary)	ASTM C1585 / EN 13057	Significant reduction in capillary water absorption compared to untreated substrate
2.	Surface Water Repellency	EN 13580 / RILEM II.4	Treated surface exhibits strong water-repellent behaviour
3.	Depth of Penetration	EN 14630	Effective penetration into capillary pore structure observed
4.	Water Penetration Resistance	EN 12390-8 / DIN 1048	Reduced depth of water penetration under pressure conditions
5.	Vapour Permeability	ASTM E96 / EN ISO 7783	Breathable performance maintained
6.	Chloride Ion Penetration	ASTM C1202	Reduced ionic permeability indicating lower moisture and salt transport potential
7.	Efflorescence Control	ASTM C67 (adapted) / RILEM CPC 11.3 / Wet–dry cycling	Significant reduction in salt migration and visible efflorescence formation
8.	Alkali Resistance	ASTM D1308	No adverse effect under alkaline substrate conditions
9.	UV & Weathering Resistance	ASTM G154	Stable performance under simulated environmental exposure
10.	Wet–Dry Cycling Performance	Accelerated cyclic exposure evaluation	Maintains performance under repeated wetting and drying conditions
11.	Adhesion Improvement (Indirect System Performance)	ASTM D4541	Improved adhesion characteristics of subsequent coating systems
12.	Coating Compatibility Performance	System evaluation	Enhanced performance and durability of applied coating systems
13.	Durability Performance	Long-term exposure / field simulation	Consistent and stable performance under practical service conditions
14.	Substrate Compatibility	Internal evaluation	Compatible with mineral construction substrates
15.	System Compatibility (Step 1 + Step 2)	System evaluation	Improved overall system performance with SilanStop™ After Coat 2K System

9.2 PERFORMANCE OVERVIEW

Based on the above evaluations, Esplendido SilanStop™ demonstrates:

- ✓ Significant reduction in capillary water absorption
- ✓ Effective internal moisture-control performance
- ✓ Advanced anti-efflorescence behaviour
- ✓ Reduced transport of dissolved salts within substrate
- ✓ Breathable non-film-forming performance
- ✓ Stable behaviour under cyclic wetting and environmental exposure
- ✓ Improved adhesion and durability of subsequent coating systems
- ✓ High compatibility with cementitious and masonry substrates

9.3 SYSTEM-LEVEL PERFORMANCE

When used as part of the Esplendido SilanStop™ Dual Protection System

- ✓ Internal moisture activity is stabilized at substrate level
- ✓ Salt migration and recurring efflorescence are minimized
- ✓ Waterproofing system reliability is improved
- ✓ Paint, putty, and coating durability are enhanced
- ✓ Risk of moisture-related coating failure is significantly reduced
- ✓ Long-term substrate and surface performance become more reliable under practical construction conditions.

10. RECOMMENDED SUBSTRATES

Esplendido SilanStop™ is suitable for application on absorbent mineral-based construction substrates where internal moisture movement, salt migration, dampness, or coating deterioration are associated with capillary pore activity.
The system is designed for both vertical and horizontal applications and is particularly effective on porous cementitious substrates that allow deep penetration into the capillary network.

10.1 CEMENTITIOUS & MASONRY SUBSTRATES

- Cement plaster (internal and external)
- Concrete surfaces and RCC structures
- Brick masonry and block work
- Cement-based renders and screeds
- Sand-cement plaster systems
- Porous cementitious surfaces

These substrates contain interconnected capillary pores that allow effective penetration and internal moisture-control action.

10.2 TERRACE & HORIZONTAL SUBSTRATES

Esplendido SilanStop™ is especially suitable for terrace systems where moisture ingress commonly occurs through pores, joints, and micro-cracks.

Recommended terrace substrates include:

- Cement plastered terraces
- Screed and leveling layers
- RCC roof slabs
- China mosaic systems
- Cement tile terraces
- Porous natural stone finishes (e.g., Kota stone and similar materials)

The system helps stabilize internal moisture behaviour before application of waterproofing coatings.

10.3 TILED & JOINT-BASED SYSTEMS

Suitable for:

- Tile-joint based systems
- Terrace tiles with absorbent or deteriorated grout
- Cementitious joint systems
- Stone tile installations with porous joints

Note:
Penetration in tiled systems primarily occurs through grout lines, joints, pores, and micro-cracks. Dense non-porous tile surfaces themselves may not allow direct penetration.

10.4 DAMPNESS & MOISTURE-AFFECTED AREAS

Suitable for:

- Damp internal walls
- Efflorescence-prone surfaces
- Moisture-affected plaster systems
- Seepage-affected wall sections
- Areas exposed to recurring moisture activity

10.5 WET AREAS

Suitable for:

- Bathrooms
- Utility spaces
- Kitchens
- Service areas exposed to regular moisture

The system helps reduce internal moisture migration through cementitious substrates and joints.

10.6 SUBSTRATE CONDITION REQUIREMENTS

For effective performance:

- Substrate must be absorbent and mineral-based
- Surface should be structurally sound and stable
- Surface must be free from coatings that restrict penetration
- Major cracks and damaged areas should be repaired prior to application

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11. APPLICATION AREAS & USE CASES

Esplendido SilanStop™ is designed for use in a wide range of applications where internal moisture stabilization, anti-efflorescence protection, and substrate conditioning are required.
The system is suitable for both remedial and preventive applications in new as well as existing construction.

11.1 INTERIOR DAMP WALLS

Recommended for:
- ✓ Dampness-affected walls
- ✓ Walls showing recurring moisture patches
- ✓ Efflorescence-prone surfaces
- ✓ Areas affected by paint blistering or peeling

The system helps stabilize internal moisture behaviour before putty and paint application.

11.2 EXTERIOR WALLS

Suitable for:
- ✓ External plastered surfaces exposed to rainwater
- ✓ Cementitious facades
- ✓ Water-absorbent masonry surfaces
- ✓ Exterior surfaces prone to moisture ingress and salt staining

Application helps reduce water absorption and improve durability of coating systems.

11.3 TERRACE WATERPROOFING--BASE LAYER

Recommended for:
- ✓ Cement plastered terraces
- ✓ Screed-based terrace systems
- ✓ China mosaic terraces
- ✓ Cement tile and joint-based terrace systems
- ✓ Roof slabs exposed to recurring leakage problems

The recommended system sequence is:

Esplendido SilanStop™ → SilanStop™ After Coat 2K System → PU / Acrylic Water proofing

This system helps:
- ✓ Reduce internal moisture activity
- ✓ Improve substrate stability before waterproofing
- ✓ Enhance adhesion of waterproofing coatings
- ✓ Improve long-term terrace waterproofing performance

11.4 WET AREAS & UTILITY ZONES

Suitable for:
- ✓ Bathrooms
- ✓ Kitchens
- ✓ Utility areas
- ✓ Moisture transfer zones adjacent to wet areas

The system helps reduce internal moisture movement through capillary pathways and joints.

11.5 RISING DAMP ZONES

Recommended for:
- ✓ Lower wall sections affected by ground moisture
- ✓ Areas showing recurring dampness and salt deposits
- ✓ Capillary moisture migration zones

The system helps reduce upward moisture movement within the substrate.

11.6 Preventive Applications in New Construction

Recommended for:
- ✓ Newly cured plaster surfaces
- ✓ Terrace waterproofing base preparation
- ✓ Cementitious substrates prior to finishing systems
- ✓ Moisture-prone construction zones

Preventive application helps improve long-term system durability and reduce future moisture-related failures.

12. SURFACE PREPARATION

Proper surface preparation is essential to ensure effective penetration, moisture-control performance, and long-term durability of the Esplendido SilanStop™ system.
Inadequate preparation may restrict absorption and reduce overall effectiveness.

12.1 GENERAL REQUIREMENTS

Surface must be clean, dry, and structurally sound

Substrate should be absorbent to allow penetration

Remove contaminants that may hinder absorption or penetration

12.2 REMOVAL OF EXISTING COATINGS

Recommended for:
- ✓ Paint
- ✓ Putty
- ✓ Waterproofing coatings
- ✓ Sealers
- ✓ Curing compounds
- ✓ Surface contaminants

Mechanical preparation methods such as scraping, grinding, or wire brushing may be used where necessary.
Partial removal may result in uneven penetration and inconsistent performance

12.3 CLEANING

The surface should be cleaned to remove:
- ✓ Dust and loose particles
- ✓ Oil and grease
- ✓ Dirt and contaminants
- ✓ Existing efflorescence deposits

Recommended cleaning methods may include:
- Wire brushing
- Mechanical abrasion
- Air blowing or vacuum cleaning
- Water washing followed by complete drying

12.4 CRACK & SURFACE REPAIRS

- ✓ Repair cracks, damaged areas, and voids before application
- ✓ Structural cracks should be treated using appropriate repair systems
- ✓ Ensure repaired areas are properly cured and compatible with the treatment system

12.5 SURFACE CONDITION CHECK

Before application:
- ✓ Surface should be visibly dry
- ✓ No standing water or active leakage should be present
- ✓ Substrate should not be saturated or waterlogged

12.6 ABSORPTION CHECK

A simple field absorption check is recommended:
- ✓ Sprinkle water on the substrate surface
- ✓ If water is absorbed surface is suitable
- ✓ If water beads or remains on surface additional preparation may be required

13. DILUTION RATIO

Esplendido SilanStop™ should be diluted with clean water prior to application as per the recommended dilution ratio to achieve optimum penetration, capillary moisture-control performance, and uniform substrate absorption.

Recommended Dilution Ratio (By Volume)

Esplendido SilanStop™	1:3	Clean Water

Dilution Guidelines
- Use only clean potable water for dilution
- Mix thoroughly until a uniform solution is achieved
- Prepare dilution in clean containers only
- Avoid contamination during mixing and handling

14. APPLICATION METHOD

Esplendido SilanStop™ should be applied to ensure uniform distribution and adequate penetration into the substrate.
Proper application is essential for effective internal moisture control and anti-efflorescence performance.

14.1 APPLICATION TOOLS

Suitable application methods include:
(I) Brush (II) Roller (III) Low-pressure spray

Brush application is generally recommended for controlled saturation and better penetration.

14.2 APPLICATION PROCEDURE

- Apply Esplendido SilanStop™ uniformly over the prepared surface
- Ensure complete wetting and saturation of the substrate
- Allow the material to penetrate into the surface
- Avoid untreated or dry areas
- Application should focus on achieving penetration rather than forming a surface film.

14.3 SATURATION REQUIREMENT

- The substrate should be adequately saturated to allow effective penetration into capillary pores.
- Highly absorbent substrates may require additional applications.

14.4 WET-ON-WET APPLICATION

For porous or highly absorbent surfaces:
- Apply subsequent coats while the previous coat remains wet
- This helps improve penetration depth and uniformity

14.5 NUMBER OF COATS

Typically:
- 1–2 coats are sufficient under normal conditions

Additional coats may be required depending on:
- Surface porosity
- Absorption characteristics
- Moisture condition of substrate

14.6 APPLICATION CONTROL

- Avoid excessive surface pooling
- Do not dilute the product unless specified
- Ensure consistent application across the entire treatment area

14.6 POST-APPLICATION

- Allow minimum 24 hours before applying subsequent system layers
- Protect treated surfaces from rain or water exposure during initial curing period

This curing period helps ensure proper penetration and internal moisture-control performance.

15. COVERAGE

The coverage of Esplendido SilanStop™ depends on the porosity, absorption characteristics, surface condition, and capillary structure of the substrate.
Highly porous or moisture-affected substrates may require higher material consumption to achieve adequate penetration and saturation.

15.1 TYPICAL COVERAGE RANGE

Approximate coverage:

23–28 m²
per 4 litre diluted solution

Actual coverage may vary depending on site conditions and substrate characteristics.

15.2 FACTORS AFFECTING COVERAGE

Material consumption may vary depending on:


Surface porosity and absorption rate


Roughness and texture of substrate


Moisture condition of the surface


Presence of cracks, joints, or micro-porosity


Application method (brush, roller,or spray)


Number of coats applied

Highly absorbent cementitious substrates generally require greater material consumption

15.3 PRACTICAL RECOMMENDATION

Material consumption may vary depending on:

Conduct a site trial before full-scale application to determine actual coverage

Ensure sufficient saturation of the substrate for effective penetration

Additional application may be required on porous or deteriorated surfaces

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ESPLENDIDO SILANSTOP™

INTERNAL MOISTURE CONTROL & ANTI-EFFLORESCENCE TREATMENT

STEP 1- INTERNAL PROTECTION

- REDUCES CAPILLARY MOISTURE MOVEMENT
- CONTROLS SALT MIGRATION & EFFLORESCENCE
- IMPROVES SUBSTRATE STABILITY BEFORE WATERPROOFING
- BREATHABLE NON-FILM FORMING
- HELPS MINIMIZE FUNGUS, ALGAE & MICROBIAL GROWTH
- DEEP PENETRATION INTO CAPILLARY PORE STRUCTURE

16. DRYING & PENETRATION TIME

Proper penetration and curing time are important to allow effective internal moisture-control action and capillary pore modification within the substrate.

16.1 INTERIOR DAMP WALLS

Typical surface drying time:

1 – 2 hours

Actual drying time may vary depending on:

- Ambient temperature
- Relative humidity
- Surface porosity
- Air circulation

16.2 PENETRATION & REACTION TIME

Minimum recommended waiting time before applying subsequent system layers:

24 hours

This duration allows:

- ✓ Adequate penetration into capillary pores
- ✓ Internal moisture-control action
- ✓ Development of hydrophobic modification within the substrate

16.3 RECOAT CONDITIONS

- ✓ Additional coats may be applied using wet-on-wet application technique
- ✓ If the surface becomes dry, reapplication can be carried out after initial absorption

16.4 FACTORS AFFECTING DRYING & PENETRATION

Drying and penetration behaviour may vary depending on:

- Temperature and humidity
- Surface absorption characteristics
- Substrate moisture condition
- Ventilation and airflow
- Application thickness and saturation level

16.5 CURING PRECAUTIONS

- ✓ Protect treated surfaces from rain or water exposure during initial curing
- ✓ Avoid application under unsuitable weather conditions
- ✓ Ensure proper ventilation in enclosed areas

17. APPLICATION CONDITIONS

Application should be carried out under suitable environmental and site conditions to ensure effective penetration and reliable long-term performance.

17.1 TEMPERATURE RANGE

Recommended application temperature:

+5°C to +35°C

Avoid application under extremely low or high temperatures.

17.2 SURFACE CONDITIONS

- Surface must be dry, absorbent, and structurally stable
- Avoid application on saturated or waterlogged substrates
- Active leakage or standing water should be rectified before application

17.3 WEATHER CONDITIONS

- Do not apply during rain
- Avoid application if rainfall is expected during curing period
- Avoid strong wind conditions or direct intense sunlight during application

17.4 SITE CONDITIONS

- Ensure adequate ventilation in enclosed or poorly ventilated areas
- Avoid conditions that may significantly delay drying or penetration

17.5 GENERAL APPLICATION PRECAUTIONS

- Follow recommended application procedures
- Ensure uniform substrate saturation
- Use complete system approach for optimum long-term performance

18. LIMITATIONS

While Esplendido SilanStop™ provides advanced internal moisture-control and anti-efflorescence performance, the following limitations should be considered for proper application and system design.

18.1 SUBSTRATE LIMITATIONS

- Not suitable for non-absorbent or fully sealed surfaces
- Limited penetration may occur in dense low-porosity substrates
- Performance in tiled systems depends on penetration through joints, grout lines, pores, and micro-cracks

18.2 FUNCTIONAL LIMITATIONS

- Not intended as a crack-filling or structural repair material
- Does not seal large cracks, expansion joints, or active leakage paths
- Not designed to replace structural waterproofing systems where required

18.3 APPLICATION LIMITATIONS

- Surface preparation is critical for effective penetration
- Not recommended on contaminated, oil-affected, or poorly prepared surfaces
- Improper application may reduce performance effectiveness

18.4 MOISTURE CONDITION LIMITATION

- Active flowing leakage should be rectified prior to application
- Excessively waterlogged substrates may restrict penetration efficiency

18.5 SYSTEM REQUIREMENT

Esplendido SilanStop™ is designed to function as part of the complete:

ESPLENDIDO SILANSTOP™ DUAL PROTECTION SYSTEM

For optimum long-term performance, application of:

ESPLENDIDO SILANSTOP™ AFTER COAT 2K SYSTEM

is recommended as the reinforced surface protection layer prior to final waterproofing or finishing systems.

19. SYSTEM BENEFITS

Esplendido SilanStop™ provides advanced moisture-management and substrate stabilization benefits by addressing internal moisture activity within the capillary pore structure rather than only providing surface-level water repellency.

19.1 INTERNAL MOISTURE-CONTROL BENEFITS

- Helps reduce capillary moisture movement within substrate
- Reduces capillary water absorption
- Stabilizes internal moisture behaviour
- Helps reduce recurring dampness activity

19.2 ANTI-EFFLORESCENCE BENEFITS

- Helps minimize dissolved salt migration
- Reduces recurring white salt deposits (efflorescence)
- Improves long-term surface appearance
- Helps reduce paint blistering and flaking caused by salt pressure

19.3 FUNGUS, ALGAE & MICROBIAL CONTROL BENEFITS

Because internal moisture activity is reduced:

- Conditions favourable for fungus growth are minimized
- Algae formation risk is reduced
- Microbial growth conditions become less favourable
- Long-term surface cleanliness improves

19.4 WATERPROOFING & COATING PERFORMANCE BENEFITS

- Improves substrate stability before waterproofing application
- Enhances adhesion of PU and acrylic waterproofing coatings
- Helps improve durability of paint and putty systems
- Reduces risk of coating failure due to hidden internal moisture activity

19.5 TERRACE WATERPROOFING BENEFITS

When used in terrace systems:

- Helps improve long-term waterproofing reliability
- Reduces moisture-related stress beneath waterproofing layers
- Enhances performance consistency of terrace coating systems
- Supports improved waterproofing durability under practical exposure conditions

19.6 SYSTEM-LEVEL BENEFITS

When used as part of the Esplendido SilanStop™ Dual Protection System:

- Internal moisture movement is controlled at substrate level
- Surface protection and coating performance are improved
- Overall system durability becomes more reliable
- Long-term substrate stabilization is enhanced under practical site conditions

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TECHNICAL DATA SHEET
ESPLENDIDO SILAN STOP

ESPLENDIDO SILANSTOP™

INTERNAL MOISTURE CONTROL & ANTI-EFFLORESCENCE TREATMENT

STEP 1- INTERNAL PROTECTION

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- DEEP PENETRATION INTO CAPILLARY PORE STRUCTURE

20. STORAGE & SHELF LIFE

Proper storage is essential to maintain the quality, stability, and performance characteristics of Esplendido SilanStop™.

20.1 STORAGE CONDITIONS

- ✓ Store in a cool, dry, and well-ventilated area
- ✓ Protect from direct sunlight, excessive heat, and moisture exposure
- ✓ Keep containers tightly closed when not in use
- ✓ Avoid contamination during handling and storage

20.2 TEMPERATURE RANGE

Recommended storage temperature:

+5°C to +35°C

Avoid exposure to:

Excessive heat | Freezing conditions | Sudden temperature fluctuations

20.3 HANDLING PRACTICES

- ✓ Store containers in upright position
- ✓ Use clean tools and containers during application
- ✓ Prevent ingress of dust, dirt, or foreign materials into the container

20.4 SHELF LIFE

Approximate shelf life:

24 months from date of manufacture

when stored in unopened original packaging under recommended storage conditions.

21. SAFETY INFORMATION

Esplendido SilanStop™ should be handled in accordance with standard industrial safety and hygiene practices.

21.1 GENERAL PRECAUTIONS

- ✓ Avoid direct contact with eyes and skin
- ✓ Use appropriate personal protective equipment (PPE)
- ✓ Ensure adequate ventilation during application

21.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Recommended PPE includes:

Protective gloves | Safety goggles or eye protection | Protective clothing where required

21.3 FIRST AID MEASURES

	Eye Contact	Rinse immediately with clean water and seek medical attention if irritation persists.
	Skin Contact	Wash thoroughly with soap and water.
	Inhalation	Move affected person to fresh air.
	Ingestion	Seek immediate medical advice.

21.4 GENERAL SAFETY NOTE

- ✓ Keep out of reach of children
- ✓ For professional use only
- ✓ Refer to relevant safety documentation where applicable

22. ENVIRONMENTAL CONSIDERATIONS

22.1 ENVIRONMENTAL PRECAUTIONS

- Do not discharge product into drains, water bodies, or soil
- Avoid uncontrolled release into the environment

22.2 SPILL MANAGEMENT

- Absorb spills using suitable inert material
- Collect waste material for appropriate disposal
- Clean affected area using suitable cleaning methods

22.3 DISPOSAL

- Dispose of unused material and empty containers in accordance with local regulations
- Follow applicable environmental and safety guidelines

23. PACKAGING

Esplendido SilanStop™ is supplied in practical packaging options suitable for different project scales and application requirements.

23.1 AVAILABLE PACK SIZES

1 LITRE | 5 LITRES | 20 LITRES

23.2 PACKAGING NOTES

- Supplied in sealed containers to maintain product quality and stability
- Packaging is designed for ease of transportation, storage, and site handling
- Larger pack sizes are recommended for bulk and large-area applications to maintain application consistency

24. DISCLAIMER & WARRANTY

The information provided in this Technical Data Sheet is based on current knowledge, laboratory testing, and practical experience under controlled conditions. The data is intended to provide general guidance on product properties, application methods, and typical performance characteristics.

However, actual performance may vary depending on several factors beyond the manufacturer's control, including but not limited to:

- Substrate type, condition, and preparation.
- Application method, workmanship, and site practices.
- Environmental conditions such as temperature, humidity, and exposure.
- Compatibility with other materials used within the system.

Esplendido SilanStop™ is designed to function as an advanced internal moisture-control and anti-efflorescence system and is recommended to be used as part of the complete:

ESPLENDIDO SILANSTOP™ DUAL PROTECTION SYSTEM

in conjunction with:

ESPLENDIDO SILANSTOP™ AFTER COAT 2K SYSTEM

The overall performance of the system depends on correct product selection, proper application, and adherence to recommended procedures.
The user is responsible for determining the suitability of the product for the intended application and for ensuring that all application instructions and good construction practices are followed.
It is recommended to conduct site trials or sample applications to verify compatibility and performance under actual project conditions.

Warranty

This product is supplied with a manufacturer warranty. For complete warranty terms, conditions, and coverage details, please contact the manufacturer or authorized representative.

Limitation of Liability

The manufacturer's responsibility is limited to the supply of the product as per stated specifications at the time of delivery.
:

The manufacturer shall not be liable for

- Improper application or workmanship-related issues
- Incorrect use or unsuitable application conditions
- Site or substrate-related failures
- Indirect, incidental, or consequential damages

No legal liability or claim shall arise beyond replacement of product or equivalent material value, subject to manufacturer evaluation.

All recommendations and information provided are subject to change without prior notice as part of ongoing product development and improvement.

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