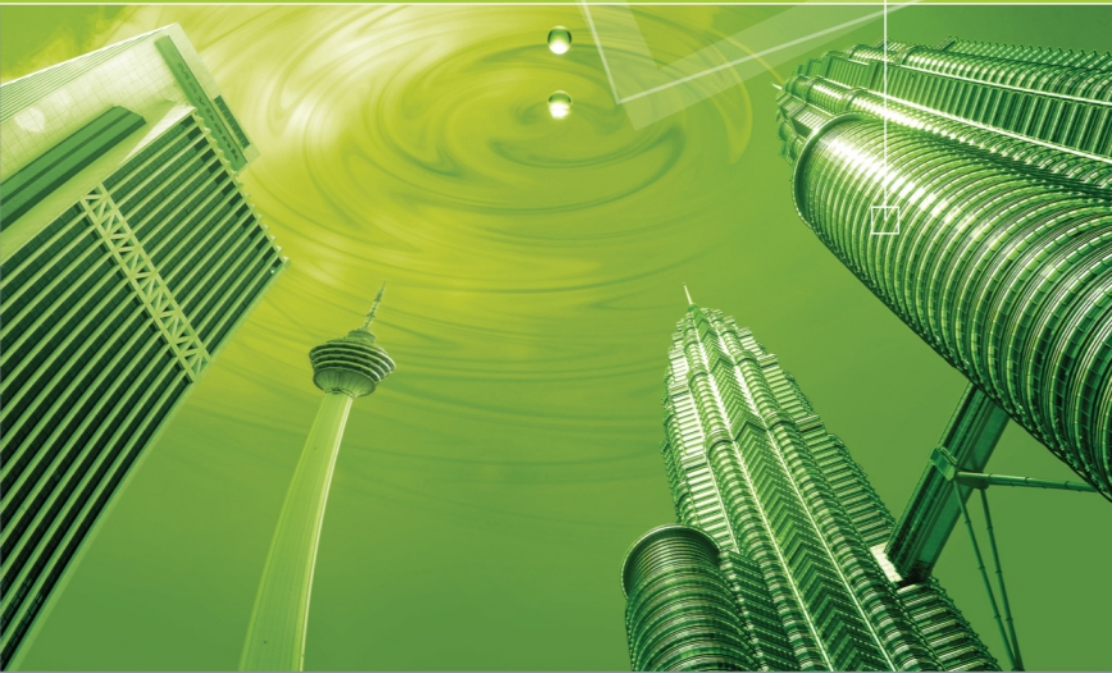




# The Complete Waterproofing Solutions





To Provide Complete Effective Waterproofing Solutions Globally

# Waterproofing Buildings around the World

## SEE YOU AT YOUR SITE!



our story

We at Greenseal have only one mission in mind as we embark on a working relationship with you - To provide complete effective waterproofing solutions globally.

**Company Background**

Greenseal Products (M) Sdn. Bhd. was established humbly in 1981, manufacturing waterproofing materials under foreign technology license. Then, its range of waterproofing products was only manufactured to cater to local demand and had ever since installed in many prestigious diverse projects and skyscrapers in Malaysia.

Today, Greenseal products are well acknowledged by both the local and international panels of consultants and contractors. By 2005, Greenseal products are already used at project sites around the world in more than 25 countries, spanning across China, Asian, Indian, Middle Eastern and Australian continents. With an extensive distribution network in these regions, we have collated major project references, project experience and industry experience to enhance our performance in the waterproofing world globally.

**Proactive Customer & Technical Support**

Greenseal's team of proactive technical sales representatives offers technical support package to consultants, contractors and end users, providing information on Greenseal range of high quality waterproofing products, while offering the best cost-effective waterproofing system to suit all aspects of the construction industry. Whether it is enquiries pertaining to technical specifications, delivery arrangements or on-site application procedures, we at Greenseal provide full customer and technical supports all the way.

**Proven Technology & Performance**

From utilizing nature's complex blend of crystallization reactions to synthetic bio-chemical combinations, Greenseal range of high performance products are manufactured under the stringent MS ISO 9001 : 2008 Quality Management Systems. This system applies to all aspect of manufacturing, marketing and distribution, underpinning our commitment to provide a world standard product to our customers. Greenseal products are sealed in bar coded packaging for topmost quality assurance.

**Pursuit of Research & Development**

R&D budget is allocated annually to pursue our goal for higher technological advancement in the field of waterproofing solutions while upgrading and refining the products performance. Our heavy emphasis on R&D meant only one objective - You will only use the best waterproofing solution!





Expansion of Our Global Business

Perfectio

Greenseal Crystallization range of waterproofing compound is formulated from high grade Portland cement, fine quartz sand and active chemical agents. Supplied in powder form, it is ready to be mixed with water and applied as a slurry coating, forming of mortar consistency, used for grouting leakages or added to concrete volume as admixture.

Penetrates into capillaries system  
Plugs pores and capillary tracts  
Becomes integral part of concrete

# Crystallization Seals Water Passageways

## Infinitely

### How Greenseal Crystallization Works

The chemical agents (organic and inorganic salts) in Greenseal require the presence of water, to react with oxides of, for instance calcium, aluminum, iron and others to form large complex molecules. The ions all having one or more free chemical bonds, interact with each other or with other complex ions to produce long chained complex chemical bonds which then crystallize in the concrete capillaries system. These molecular complexes are capable of bonding physically or chemically with considerable amounts of water. However, it still allows the passage of water vapour, thus allowing the concrete to breathe.

The complexes are also capable of exchanging atom groups with nearby molecules in a similar way to ion exchange used in water softeners and can in this way penetrate through the capillaries deep into the substrate. Here they react as described above with calcium oxides and hydroxides, also popularly known as "Free Lime". After 28 days, the crystals will have a growth up to 50mm. In another 6 months, the crystal growth will extend to 150mm. The formed crystals will remain in the concrete and at any later time attack by water, the crystallization process will continue.

Our crystallization range includes Greenseal 100, Greenseal 200, Greenseal 300, Greenseal Injection Grout and Greenseal Flash Set.

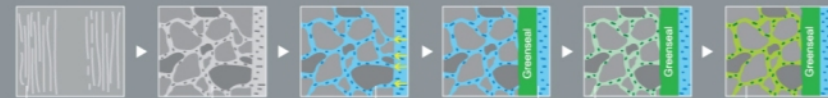
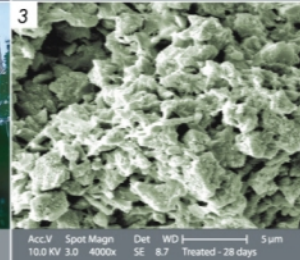
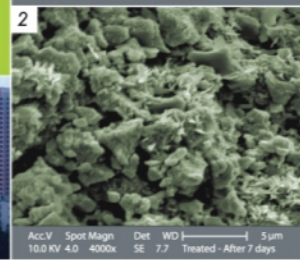
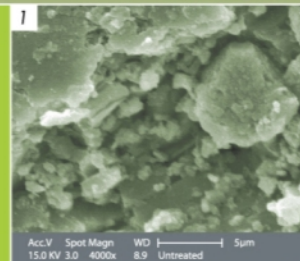
Greenseal 200 Cementitious crystallization waterproofing materials are formulated from Portland cement, fine quartz sand and active chemicals. Greenseal cementitious materials waterproof the concrete through the crystallization process, where the Greenseal chemical will form crystals inside the concrete to waterproof the material. A combination of GS 200, GS 800 and GS Injection Grout products are essential to totally waterproof concrete.

## GREENSEAL 200

Greenseal 200 is brush or spray applied as a slurry coat on the surface of concrete structures to create waterproofing barrier for the structures. It can also be applied by broadcasting the dry powder onto horizontal concrete surfaces at the time of initial set and power floating the powder into the green concrete. When hardened, it is resistant to many salts and alkalis while offering protection against sea water, mild acidic conditions, frost damage and waste water. The surface of the concrete become hard and is good for vehicular traffics.



Sem Images ▼



An ordinary concrete surface is a materials with durability and strength used in large construction works. But with Greenseal it makes the concrete structure a better material - Greenseal guarantee permanently waterproofing concrete, increases the concrete's resistance to erosion and penetration by water.

Concrete wall subjected to water attack. The water has penetrated into the capillaries openings of the concrete wall. Thus leaving the concrete unprotected and non-resistant to water penetration.

The same concrete wall with Greenseal GS application. Where ever possible, Greenseal GS should always be applied to the water side surface of the concrete. If surface is not accessible, then the opposite surface (interior) will be as effective.

The Greenseal chemical agents start to react with the free lime, moisture and begin to penetrate deeper and deeper into the concrete forming, long chained molecular crystals.

The water present in the capillaries system has been expelled and the concrete is now watertight and dry. The Greenseal crystals formed will remain in the concrete and at any later time attack by water, the crystallization process will continue.

The natural free lime and moisture in the concrete's capillaries system seen in a dry, cut-through concrete wall.

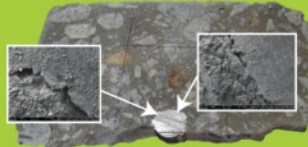




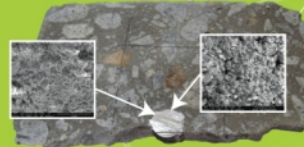
# GREENSEAL 100

Green Seal 100 is a very concentrated waterproofing material formulated with Portland cement and active chemical specially for concrete waterproofing. It is added into concrete as a powder to waterproof the concrete under its crystallization process.

Protect The Reinforcement Bar with GS100 Waterproofing Crystal



Scanning Electron Microscopy (SEM) Images between rebar and concrete Taken at 80 Times Magnification



Scanning Electron Microscopy (SEM) Images between rebar and concrete Taken at 4000 Times Magnification



# GREENSEAL 300

Green Seal 300 is applied in mortar consistency to make coves and for filling reglets at construction joints. It is also used to repair honeycombing, cracks, filling of form-tie holes, and cold joints.



Philippines - Tzu Chi

Cost effective solution  
Strong adhesion properties

# Economical GREENSEAL FLEXI 201 protection



# GREENSEAL INJECTION GROUT

Green Seal Injection Grout provides permanent protection against leaks. It is a cement based compound, supplied in the form of powder, and formulated from Portland cement, Fine quartz sand, active chemicals and retarding agent which will not saponify under wet and alkaline conditions. It is normally used as a grout in grouting works.



Singapore

# GREENSEAL FLASH SET

Green Seal Flash Set is formulated as a crystalline, fast-setting, non-shrink and high-bond-strength hydraulic cement compound for concrete repairs. It stops flowing water in seconds and is used to seal cracks, leaks, repairing honeycombs, anchoring bolts, fill tie-holes and other defects in concrete.



# Economical protection that bonds ever stronger

Green Seal Flexi 201 is a flexible cement based polymer modified waterproofing coating. Its 2 parts components consist of Portland cement, well graded sand and plasticizer. It is formulated with specially graded fine quartz high quality polymer to create a brushable smooth slurry with excellent bonding and adhesion properties to most substrates.

It is suitable to be applied to concrete and mortar to prevent water infiltration by filling and sealing the pores, voids, hairline cracks of all concrete. Nonetheless, it still provides a breathable coating which allows the transmission of water vapour. Green Seal Flexi 201 also acts as a protective layer against water penetration in swimming pools & water tanks and is non-toxic.



KL - Komplek Mahkamah

India - Reservoir

Swimming Pool

India



KL - Cineleisure

- Easy hassle-free application
- Seamless water-tight solution

## GREENSEAL 5000

Highly elastomeric system



### Highly elastomeric system for extreme thermal stress

Green Seal 5000 is a liquid, cold-applied, seamless, elastomeric, bitumen modified polyurethane waterproofing membrane which provides superior protection against the penetration and lateral movement of water. It is a single component, moisture curing, specially formulated for hand application by squeegee or roller.

Among the many advantages are the elastomeric characteristics which permit nominal expansion and contraction without losing bond to the substrate, thus protecting structurally sound, occupied areas from water penetration. It performs effectively in temperatures ranging from -40°F to +180°F (-40°C to 82°C), demonstrating excellent resistance to bacterial attack and the deteriorating effects of many acids, alkalis and salts.



Brunei Mosque

Federal Hill Development



Sony Centre



India



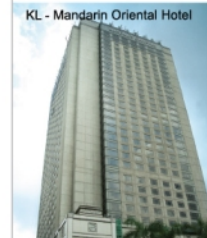
- Waterproof & colour your roof
- Resistance to UV & foot traffic

## GREENSEAL POLYDEK

Versatile system



KL - Mandarin Oriental Hotel



KL Monorail



### Versatile system for varied functions

Green Seal Polydek is a high performance, liquid applied waterproofing membrane, consisting of a very elastic polymer with inherent flexibility of allowing the membrane to accommodate movements in the substrate. It is formulated to waterproof structurally, bridging non-moving hairline cracks and it can also be a two coats application for sealing and decorating exterior surfaces.

Green Seal Polydek can be easily applied by brush, roller or airless spray on surfaces that may be damp or moist. It is water based and poses no health hazards for application in enclosed areas. It offers excellent resistance to ultraviolet degradation and regular foot traffic, thereby eliminates the need to protect it with cement screed.



Penang-  
Toyota Show Room & Services Center



Waterproofing, floor hardening & dust proofing simultaneously  
Eliminates the requirement for top screed

Performs multi-tasks

# Efficient energy saving GREENSHIELD® 108 coating

## Efficient energy saving coating

Greenshield 108 is a water-base flexible coating made from the acrylic resin system fortified with vacuumed sodium borosilicate ceramic micro spheres, which acts as a closed cell in an entire mastic. Its high reflectance and emittance properties coupled with its very low conductivity value, provides an efficient heat retarded and thermo-resistant blanket covering the entire structure, thus saving energy.

It is typically used as a roof coating where anti-fungi and weather resistant membrane-like coating is required. Other features include its excellent adhesion to a wide variety of substrates, resistance to dirt pick-up, retains flexibility after aging and breathable for vapor to escape while remaining watertight.



CERTIFICATE NO: 032-093  
ENVIRONMENTALLY  
FRIENDLY/LOW VOC



MALAYSIA  
ECO-LABEL



# GREENSEAL MULTISEAL 2000

## Performs multi-tasks at one go

Greenseal Multiseal 2000 is a spray-applied total waterproofing system that is capable of making the concrete harden, oil proof, acid resistant and waterproof. It is a blend of silicate and surfactants, and is able to become an integral part of the concrete and still allowing the concrete to breathe.

Multiseal 2000 works in a way of seeping down through the pores and capillaries of the concrete about 20 mm deep (depending on the concrete mix). It reacts with lime in the concrete to form a hard, insoluble gel within the pores, thus closing small voids. Multiseal 2000 treatment is not worn down by heavy traffic and is successfully used in car parks. The MS 2000 is capable of reaction in the present of water.



# GREENSEAL BENTOSHEET

## Superior dual performance system

Greenseal Bentosheet is a waterproofing sheet membrane manufactured to a controlled thickness of 150 mils of tough, high density polyethylene (HDPE) and expandable, quality granular Bentonite. The Bentonite, capable of expanding to 6 times its thickness (with 5mm thick), with the presence of water to form a continuing membrane waterproofing system for application to horizontal and vertical surfaces.

Greenseal Bentosheet is a waterproofing membrane designed for use on structures above and below grade. It is excellent for use on split slab parking lots, plaza decks, poured and blocks foundation walls and earth covered roofs. It has outstanding performance when used under conditions of high water head and when installed prior to the concrete pour such as retaining walls, elevator pits and basement slab. Its superiority is in basement slab with high water table.



## Efficient Textured finished eliminates protection Withstand mechanical stress & thermal shocks

Greenseal Everpol is a prefabricated membrane manufactured with a selection of distilled bitumen and atactic polypropylene (APP). It has a reinforcement of non-woven polyester that ensures no dimensional changes under sizable thermal shocks. This makes for a flexible product to be able to stand up to mechanical stress during and after installation.

Greenseal Everpol is manufactured in rolls of 1 x 10 meters. Its standard thickness of 3mm & 4mm comes in 3 types of finish; plain, sand and mineral finished. The membrane is torched by a propane torch and pressed on to the substrate with the edges overlap by at least 5 cm.

# GREENSEAL EVERPOL



# GREENSEAL B2SEAL

## Easy application for flexible usage

Greenseal B2seal is a single part bitumen latex emulsion designed for use as a damp proofing membrane in concrete floors, vapour barrier to cladding panels, waterproofing membrane to basements, retaining walls and flat roofs and protective coating for repair of cracks and crazing in asphalt surfaces.

Rubber latex is integrated to form a flexible elastic film which has excellent adhesion property to concrete, brickwork, metals and stone when cured. It is impermeable to water vapour penetration.

# GREENSEAL ULTRAMIX

## Hardens floor for durability

Greenseal Ultramix antiwear flooring systems are a blend of high quality non-metallic aggregates with special types of cement and chemicals which is monolithically applied into fresh concrete. It gives added protection against wear, impact and abrasion on concrete surfaces. It is also resistant to many industrial chemicals, oils, greases and detergents.

Greenseal Ultramix floor systems are designed to ensure improved durability in applications where the floor is subjected to light, medium and heavy traffic. It can be applied both indoors and outdoors. The material, with its non-dusting and added protection properties can be utilized on different industrial and commercial floor applications.



## Effective multipurpose solution

Greenseal MWR 40 is a water-dilutable Potassium Methyl Silicate used for imparting a colourless water repellent surface finish to building material without significantly reducing water vapour permeability. It is also used to provide a barrier against rising damp and the treatment remains effective for 10 to 20 years. In addition, treatment with Greenseal MWR 40 prevents efflorescence of salts and makes clearing of the tiled floor easier.

Its usage versatility ranges from making manufactured and natural stones, aerated concrete, low-fired clay products and plastered surface water repellent to surface treatment for concrete and damp proofing building ground. It is specially apply on wall to prevent stains and inks from entering the wall and granite.

# GREENSEAL MWR 40



## Long lasting floor with appeals

Greenseal Epoxy Coating range of products consisting of epoxy primer, epoxy resin screed, epoxy top coat and epoxy glass flake. They offer varied systems depending on area of usage and desired floor finish. They give all round protection against chemicals and substances likely to assist in steel corrosion within the concrete substrate and excellent resistance to impact, abrasion and stresses.

Epoxy primer exhibits excellent penetration properties in cementitious substrates. It promotes good adhesion for finishing epoxy coat while the high performance, seamless epoxy coating of varied colours is capable of being applied at varying thickness to suit the final use of the floor. Epoxy resin screed offers exceptional strength characteristics, and is generally applied at 5mm thickness and above; while epoxy reinforced with glass flakes constitutes as a protective layer for hard wearing surface. The result is a floor of durability and of aesthetic appeals.

# GREENSEAL EPOXY COATING



# GREENSEAL PVC WATERSTOPS

## Better profile, stronger protrusions

Greenseal PVC Waterstops are extruded from specially compounded PVC in accordance with BS 2571 Class and ASTM 3 Type G3. They are designed for use in water retaining and water excluding structures where a positive seal is required for poured in-situ concrete expansion, construction and contraction joints. Concrete structures are only as watertight as the waterstops that join them. Greenseal Waterstops are designed to allow for expansion, contraction and other movements that can cause joints to open and close.

The range of profiles for both centrally and externally placed applications when embedded into the concrete, form a continuous watertight barrier making Greenseal PVC Waterstops ideal for preventing water penetration. These profiles are available in rolls with separate intersections supplied to simplify and minimize on-site fabrication.



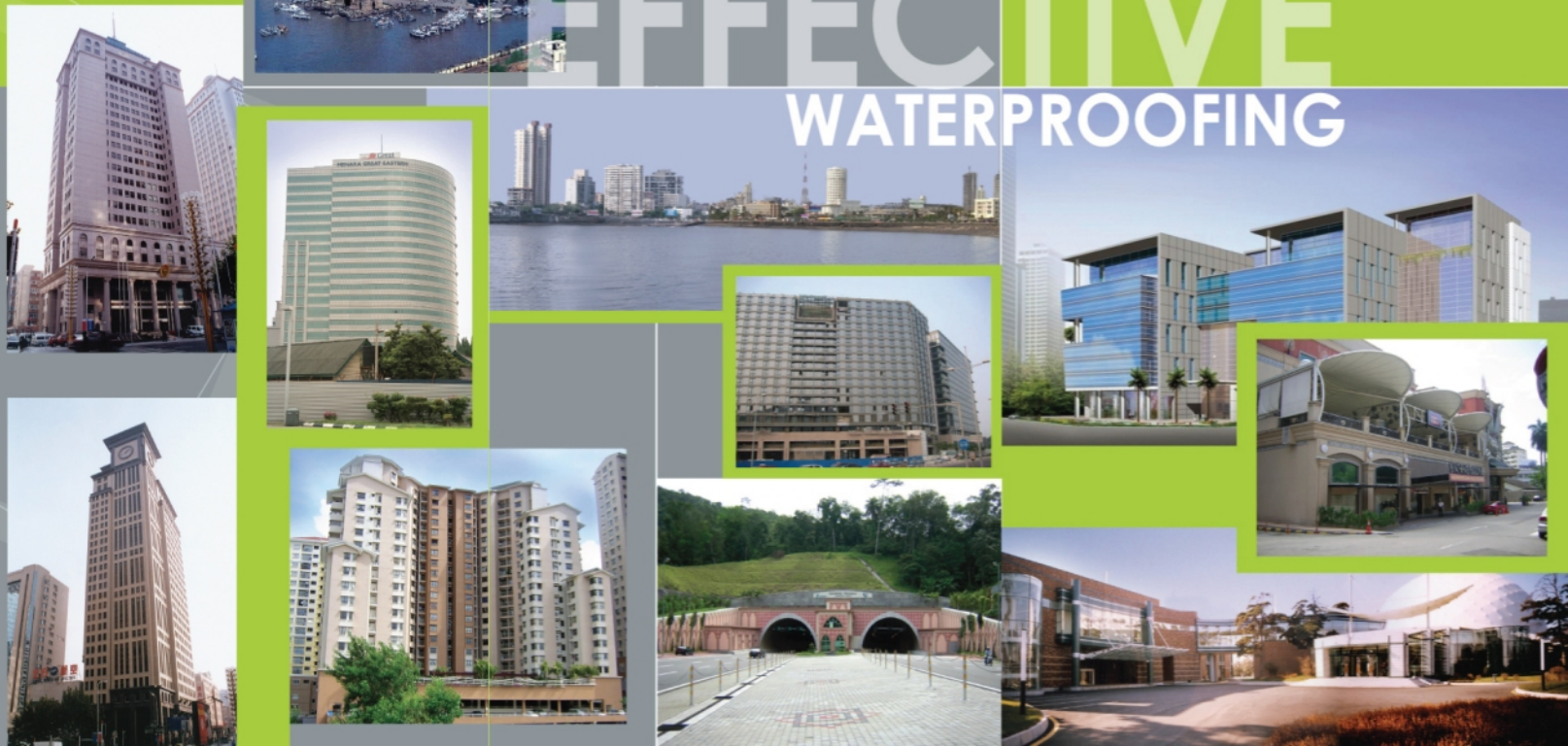
# EFFECTIVE WATERPROOFING

# GREENSEAL GREENSTOP

## Effortless effective Effortless

Greenseal Greenstop is made of high performance modified bentonite strips consisting of flexible butyl rubber and swellable clay waterproofing compound that swells upon contact with water to form a long-lasting compression seal in non-moving concrete joints. The swelling action is the result between water and hydrophilic groups which are part of the material's molecular structure.

Greenseal Greenstop is used primarily for foundation walls slabs, slabs-on-grade, precast wall panels, manholes, pipe connections, box culverts, utility and burial vaults, wet wells, and portable water tanks. It is easy to install by bonding nailing onto the surface of the concrete before the next pour. Its swelling properties is unaffected by long term wet/dry cycles and it sustains effective seal in wet conditions.





**GREENSEAL PRODUCTS (M) SDN BHD** 152154-X

No. 5 and 7, Jalan 35/10A  
Taman Perindustrian IKS  
Mukim Batu Caves  
68100 Kuala Lumpur  
Malaysia

**Tel** : +603-6188 2298  
**Fax** : +603-6186 1298  
**E-mail** : [enquiries@greenseal.com.my](mailto:enquiries@greenseal.com.my)  
**Website** : [www.greenseal.com.my](http://www.greenseal.com.my)  
[www.greenseal.com.cn](http://www.greenseal.com.cn)



Green Seal certified by  
MS ISO 9001:2008 Quality Management System  
BS EN ISO 14001:2004 Environmental Management System

Agent and Distributor :