

MULTISEAL 2000

LIQUID APPLIED WATERPROOFING SYSTEM

DESCRIPTION

Multiseal 2000 (MS2000) Liquid Applied Waterproof System is an essential integral part of your concrete. It not only enhances the hardness and strength of your concrete, concurrently it creates an interface that is,

- vapour proof,
- waterproof,
- oil proof,
- acid resistant
- chloride ion resistant and
- high in strength.

When concrete cures, fine capillaries are formed within. The formation of capillaries is inevitable in this process and it will render the concrete porous and weak. Hence, the necessity of applying sealants to these catastrophic voids to new or old concrete substrates can never be compromised!

When Multiseal 2000 is applied, it seeps its way down and through the voids (capillaries) in the concrete. Multiseal 2000 will then react at ambient temperature with free lime present in the concrete, forming non water soluble complexes of calcium silicate which are chemically resistant compounds. These compounds fill the porous surfaces and sub surfaces of the concrete, forming a breathing waterproof barrier up to 20 mm deep to prevent water leakage and the ingress of contaminants.

This highly effective penetrating waterproofing system shall protect the concrete from deterioration and maintain a seal in high thermal stress application, especially on large horizontal surfaces.

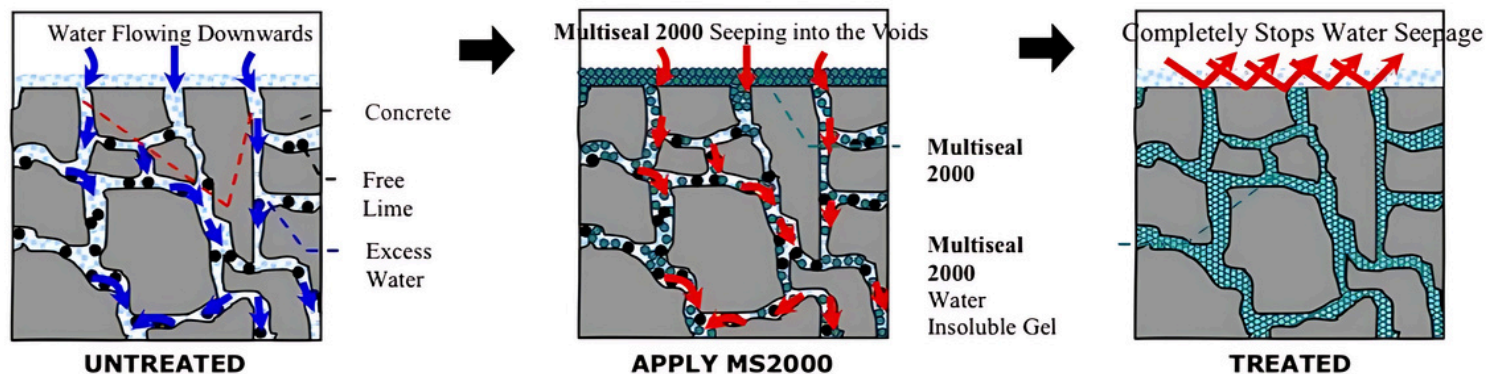
USES

- Bridge Decks
- Roof and car park roof
- Car park flooring
- Concrete wharf areas
- Water proofing concrete floors and concrete blocks.
- Plant floors, walkways and driveways
- Concrete wharf areas.

ADVANTAGES

- 1) Excellent asphalt adhesion
 - Good for bridge deck applications where asphalt topping is normally required
- 2) Increase concrete hardness and strength up to 35%
 - Surface will not be worn down by heavy traffic, abrasion and thermal stress
 - Maintain good tensile
- 3) Seals Hair-line cracks up to 1mm
 - By injection of Calcium Acetate.
 - Waterproof cracks undergoing cyclical expansion and contraction with temperature change
- 4) Continuous waterproofing activities
 - Reseals shrinkage cracks as they form with time in the presence of water
- 5) Major cost reduction
 - Asphalt topping is no longer necessary (except for bridges)
 - Eliminates maintenance cost completely
 - Relatively cheaper than other forms of surface treatment
 - Low consumption rate per area of application
- 6) Eliminates surface problems like:
 - Surface scaling, caused by improper finishing and curing, free-thaw damage and application of salt for snow removal.
 - Cracking caused by thermal contraction, load on concrete and rapid water loss when concrete still at plastic stage.
 - Dusting caused by rain during finishing or too wet of mix.
 - Efflorescence, caused by water soluble salts from the soil or the environment travelling back into the concrete.
 - Discolouration caused by metal in the cement, aggregates, fast sets and sealants that change colour, e.g. acrylic & silanes.

WATERPROOFING PROCESS FOR MS2000



TECHNICAL DATA

Tests	Samples	Untreated		MULTISEAL 2000	
		A	B	A	B
Absorption after immersion (%)		1.80	1.70	1.70	1.50
Absorption after immersion and boiling (%)		1.70	1.60	1.70	1.50
Bulk specific gravity as received		2.37	2.36	2.35	2.38
Bulk specific gravity after immersion		2.41	2.40	2.39	2.42
Bulk specific after immersion and boiling		2.41	2.40	2.39	2.42
Apparent specific gravity		2.46	2.46	2.45	2.47
Permeable void volume (%)		-	-	-	-
Water penetration (mm)		53.6		35.0	

PRODUCT PROPERTIES

Tests	Test Results
Appearance	Opaque colourless liquid
Odour	Alkaline, slight chlorine
Boiling Point	102°C
Flammability	N/A
Solids	25.5%
Specific Gravity	1.2
Vapour Pressure	N/A
Water Compatibility	Complete
Dry Time	4 hours 25°C, 75% RH
Permeability/MSec	0.3 X 10 – AS 1012.2-1994

COVERAGE FOR CONCRETE ROOF

APPLICATION SYSTEM	COVERAGE
1 st Coat Multiseal 2000	5 m ² / Litre

* Coverage is theoretical and may vary due to different substrates.

APPLICATION INSTRUCTIONS

SURFACE PREPARATIONS

Surface preparations are required before using Multiseal 2000. All surfaces must be clean and free from laitance, dust, dirt, oil, and grease and totally dry.

APPLICATION METHOD

Multiseal 2000 can be applied by roller, brush or airless spray. For good protection, it is recommended to spray Multiseal 2000.

- 1) Areas to be treated with MULTISEAL 2000 should be cleaned i.e. oils and greases removed.
- 2) MULTISEAL 2000 should be covered over an area of 5m² to one liter of the product.
- 3) MULTISEAL 2000 shall only be applied on 30 days old concrete. This is because less penetration will occur in concrete less than 30 days due to the excessive calcium hydrates being present.
- 4) MULTISEAL 2000 can also be applied as a curing agent. If MULTISEAL 2000 is used as curing agent then a second treatment after the 30 days waiting period recommended.
- 5) Spray only on concrete which is dry.
- 6) Day 1 - Allow 4-6 hours for MULTISEAL 2000 to dry then hose off with water.
- 7) Day 2 - Hose down the MULTISEAL 2000 again with water.
- 8) Day 3 - Hose down the MULTISEAL 2000 again with water.

For airless spray method:

- Tip orifice: 0.031"
- Atomizing pressure: 1000psi
- Fan Speed: 60°
- Pump: 3 litres per minute at 2500psi
- Filter: remove filters and screens
- Nozzle type: Minimum 525

For brush method:

- Use on small or narrow areas.

MIXING

No mixing is required.

CURING

45 minutes (The coating should no longer be susceptible to airborne dust and will not run in the presence of 50% relative humidity at 24°C).

CLEANING EQUIPMENT

Clean equipment with soapy water followed by rinsing with clean water. Flush mineral spirits through the spray equipment to prevent rust.

PACKAGING AND APPEARANCE

- 20 litre pail

STORAGE AND SHELF LIFE

Multiseal 2000 has a shelf life of 12 months. Keep containers tightly closed and away from ignition sources. Do not expose it to direct sunlight or leave it too long in the open air.

POT LIFE

Multiseal 2000 can be used up to 6 months once the packaging is opened.

PRECAUTION

Do not apply Multiseal 2000 if weather is imminent before the coat is dry thoroughly, or when temperature is expected to drop below 4°C. Do not apply over shingles or under laying of any sort.

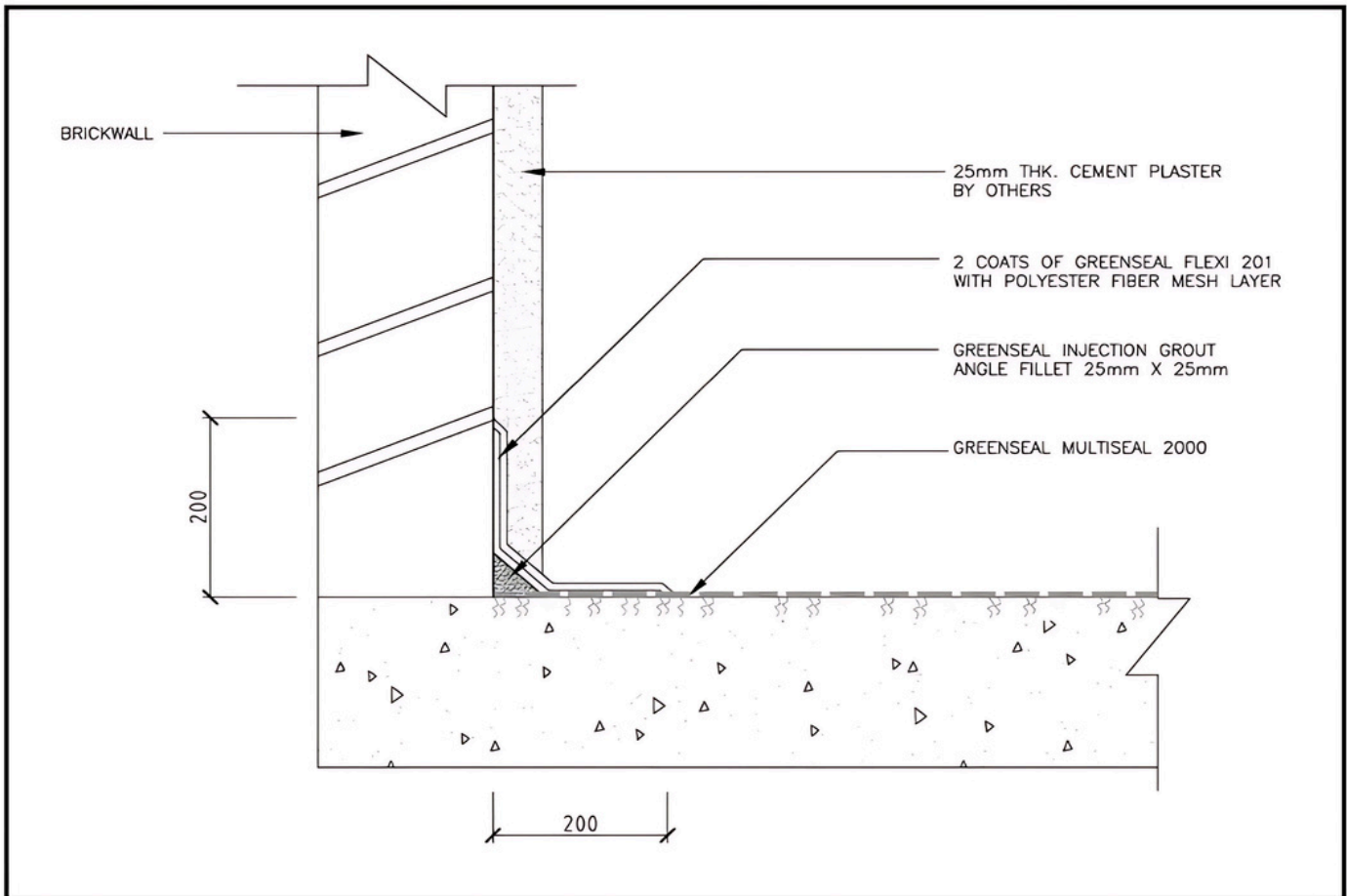
Newly applied Multiseal 2000 should be protected from rain, extreme heat and moisture during the first few hours.

Please contact Greenseal Products (M) Sdn Bhd for further technical assistance.

HEALTH, SAFETY AND CLEANING

It is recommended that the applicator wears a safety goggles and gloves. Avoid prolonged contact with exposed skin, and keep away from mouth and eyes. In case of skin contact, wash areas with soap and water. If contact with eyes, rinse thoroughly with clean water. Seek medical attention immediately if irritation persists.

TECHNICAL DRAWING USING MULTISEAL 2000 WATERPROOFING SYSTEM



Guarantee

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. GREENSEAL reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorized by us. Our guarantee covers exclusively the quality of the manufactured product. We will not accept any responsibility exceeding the value of the purchased product.