



DUAL SEAL[®]

Market leading Bentonite based, dual-sealing, below ground waterproofing system



Improving choice, quality and service



FS 658263



DUAL SEAL® market leading dual laminate waterproofing system that is easy to install

The system comprises a waterproofing sheet membrane which combines the strength, chemical and puncture resistance of high density polyethylene (HDPE) with an expanding self-sealing layer of Sodium Bentonite Clay, this forms a unique waterproofing system. DUAL SEAL® products have been used throughout the world to control water ingress in below ground areas of all types of building and civil engineering structures. They have a proven quality, quick preparation and easy method of installation making DUAL SEAL® products worldwide market leaders in the waterproofing industry.



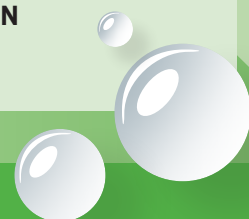
DUAL SEAL® HDPE and Sodium Bentonite laminate form a tough sheet membrane. It is easy to apply on below ground civil engineering constructions, sub level walls, cut and cover tunnels and under structural slabs and subways.



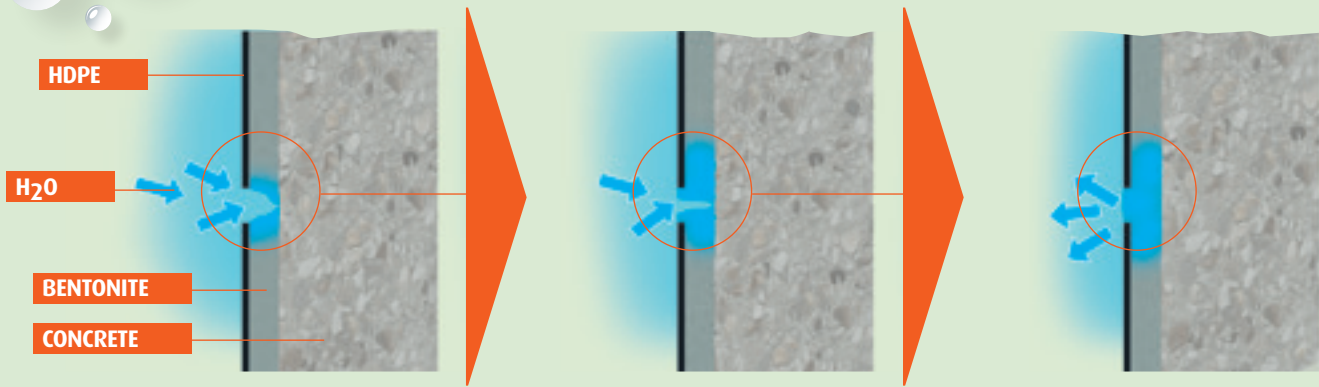
Advantages

- **PREVENTS WATER MIGRATION**
Prevents the ingress of water between membrane and concrete surfaces.
- **GOOD HYDROSTATIC HEAD RESISTANCE**
Resistance to hydrostatic water head of 46m.
- **LONG PRODUCT LIFE**
Well over a 100 years of life expectation.
- **PUNCTURE RESISTANT**
Very high puncture resistance.
- **EASY TO APPLY**
Quick and easy installation over concrete. Does not require priming and heat welding.
- **SELF HEALING**
Expands to form a watertight seal.
- **ENVIRONMENTALLY FRIENDLY**
DUAL SEAL® is a non-toxic environmentally friendly product.
- **WIDE RANGE OF TEMPERATURE INSTALLATION**
Installation temperature -30°C to +55°C.

Nationwide Depots



DUAL SEAL® Self Healing System

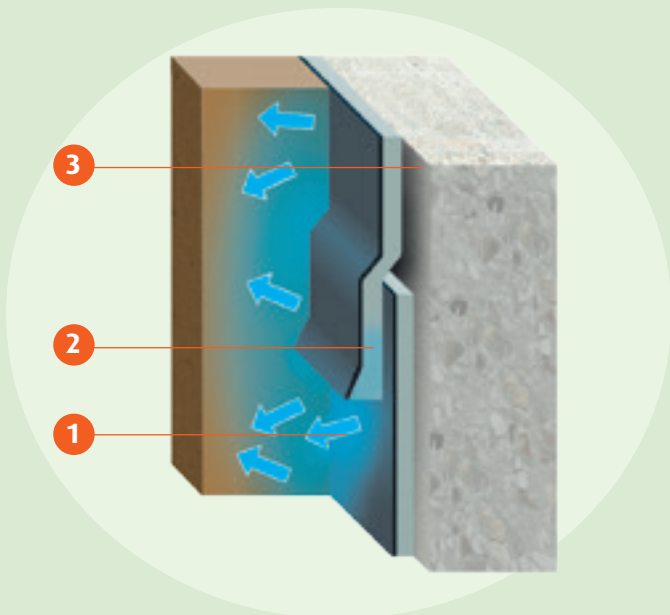


● Water enters a DUAL SEAL® damaged HDPE membrane.

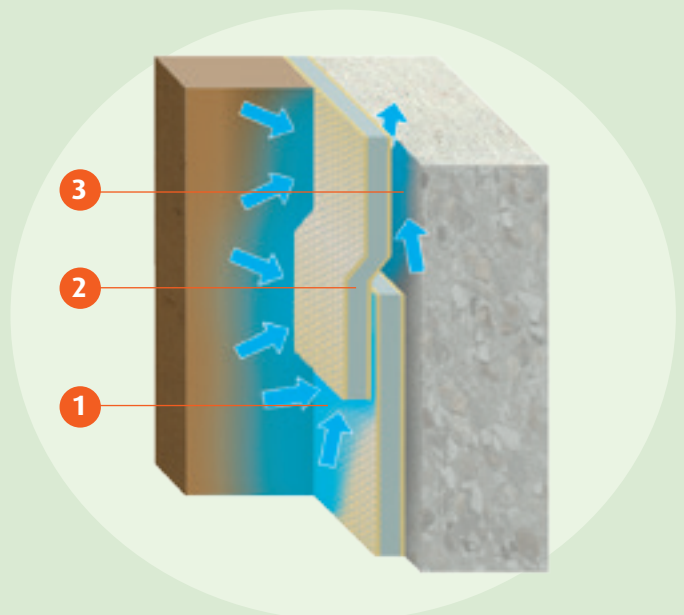
● The Sodium Bentonite layer in the system starts to react with the water which begins the sealing process.

● In a short period of time, the damaged area is covered in expanding Sodium Bentonite to form a watertight seal.

DUAL SEAL® Compared to a Geotextile Bentonite System



- 1 Water enters a damaged DUAL SEAL® installation.
- 2 The Sodium Bentonite layer hydrates stopping any further water penetration.
- 3 There is no migration of water between the membrane and the concrete.



- 1 Water enters a damaged Geotextile system.
- 2 The Bentonite layer expands.
- 3 The Geotextile fabric allows migration of water between the membrane and concrete.

The DUAL SEAL® System

The DUAL SEAL® membrane system is available in three different types: **Standard, Saltwater and Lagging Grade (LG)**. Specially designed DUAL SEAL® LG is for blindside installations or where shotcrete is to be blown directly to the face of the membrane. The Saltwater type is used in Saline and brackish water conditions. Sodium Bentonite, granules, waterstops, self-swelling mastic and other accessories are available to complete the DUAL SEAL® system.

Nationwide Depots

Technical Details*

Physical Properties	Value	Test Method
Supplied as	1.22m x 7.32m rolls nominal	D638 type 4 Dumbell
Weight	41kg	
Colour	Grey/Black	
Total membrane thickness	3.5mm - 4mm	
Membrane swelling capacity (Sodium Bentonite)		
Resistance to micro organisms (bacteria, fungi, mould, yeast)	Unaffected	
Freeze/thaw cycles	No effect before or after installation	
Installation temperatures	-30°C to +55°C	
Non toxic	Do not ingest	FTMS 101B
% Elongation-ultimate failure of membrane	700%	
Tensile strength: membrane N/mm ²	27.50	ASTM D412
Puncture resistance	43kg	ASTM D751 Method
Resistance to hydrostatic water head	46m	
Resistance to water migration under membrane	No penetration	
Water migration at or through joint	No penetration/Instant seal	
Permeance hydraulic conductivity (entire membrane)	2.7cm x 10 ⁻¹³ cm/sec.	

* Above is based on 20mil HDPE/Bentonite System. Thickness of HDPE/Bentonite to be supplied will be 15mil.

This brochure is not intended to establish product recommendations for any installation. To the best of our knowledge the information contained herein is true and accurate at the time of issue, but is subject to change without prior notice.



WARRANTY

SCP warrant all goods to be free from defects and will replace materials proven to be defective. The given information corresponds to our present standard of knowledge. However, it is the buyer's responsibility to determine the suitability of the products in individual cases by conducting own tests.



Construction Products Ltd

Nationwide Depots

St Neots	t 01480 702222	f 01480 702223
Airdrie	t 01236 541130	f 01236 541135
Birmingham	t 0121 2893 293	f 0121 2893 294
Bordon	t 01420 200 121	f 01420 200 122
Launceston	t 01566 721011	f 01566 721012
Warrington	t 01925 202 128	f 01925 202 129

Head Office

Hawkesden Road, St Neots, Cambs PE19 1QS
t 01480 702222
f 01480 702223

e sales@miersconstructionproducts.co.uk
www.miersconstructionproducts.co.uk