



HALOSEAL

EXTERNAL MASONRY WATERPROOFER

- STOPS WATER PENETRATION
- 10 YEAR LIFE
- REDUCES HEAT LOSS
- PROTECTS AGAINST MOSS , ALGAE & LICHENS



HALOSEAL

Over the years most building materials deteriorate and become porous. The extent of deterioration is dependent of geographical location, exposure to the elements and quality of construction. Eventually, however, water penetration can become a major problem leading to many other secondary problems:-

- Frost attack, spalling of brickwork, render and tiles.
- Deterioration of mortar joints.
- Efflorescence.
- Blown plaster and black mould growth internally.
- Heat loss and increased fuel coats.
- Carbonation attack and spalling concrete.
- Cavity fill saturation and bridging.

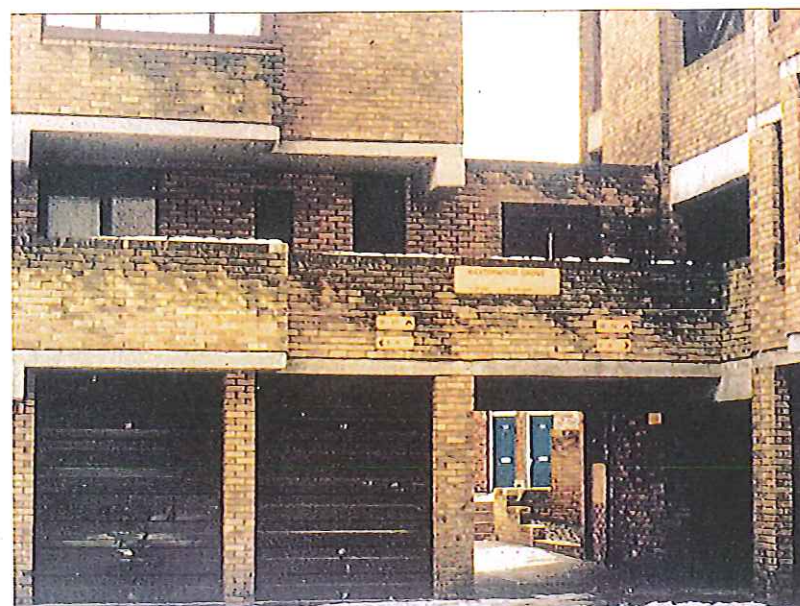
ONE APPLICATION OF **HALOSEAL** PREVENTS ALL THESE PROBLEMS.

HALOSEAL is a non-silicone waterproofer, based on metabolic stearates and, unlike traditional waterproofer, penetrates deep into the fabric and becomes an integral part of the substrate. As a result of the depth of penetration, **HALOSEAL** has a reciprocal effect, reducing the 'u' value of the wall and is equivalent of 8-10mm of insulation used on the inside. **HALOSEAL** is, therefore, extremely beneficial in keeping the wall and substrate dry, which helps to reduce excessive heat loss that occurs through damp walls.

A high proportion of moisture ingress penetrates through hairline cracks at the brick/mortar interface. **HALOSEAL** has the ability to penetrate these cracks, displace the water, thus providing complete waterproofing with no weak points.

HALOSEAL is microporous and will allow the structure to breathe. Therefore, any residual moisture trapped within the structure will come out in the form of water vapour.

HALOSEAL PROVIDES THE LONG-TERM SOLUTION TO RAIN PENETRATION – A COST EFFECTIVE, WELL PROVEN ANSWER TO A SERIOUS MAINTENANCE PROBLEM.



HALOSEAL

BENEFITS

Will withstand torrential rain, gale force winds and protect against corrosive atmospheric attack.

Reduces heat loss, keeps cavity dry and saves on fuel costs.

Allows structure to breathe and does not discolour the surface.

Specified and used successfully by Local Authorities and Housing Associations throughout the UK for over 30 years.

Protection against carbonation attack.

Reduces damage caused by acid rain.

Has an exceptionally large covering capacity and can even be applied to damp surfaces.

Will penetrate and coat hair line cracks.

Effective everywhere:- old property - new property - bricks - tiles - concrete - render - stonework.

Simple to apply. One coat application sufficient.

Treated surfaces stay cleaner longer.

Can last up to 10 years - often longer.



HALOSEAL TECHNICAL INFORMATION

COMPOSITION:

HALOSEAL is a solution of complex aluminium and zirconium stearates in hydrocarbon oils.

APPEARANCE:

A clear liquid which, when dry, does not change the appearance or colour of the substrate.

PERFORMANCE:

HALOSEAL waterproofs masonry surfaces by deeply penetrating the surface and coating each particle of aggregate in such a way as to reverse its natural hygroscopic tendency. It does not alter the accepted requirement for the surface to breathe, thus enabling residual moisture to escape. By closing out water penetration, masonry surfaces stay cleaner longer.

HALOSEAL can also reduce any tendency for the concrete/brick/render/stone to spall as well as reducing the disfiguring effects of efflorescence.

HALOSEAL will last up to 10 years.

AREAS OF USE:

- Natural and artificial stone.
- Sand cement (lime) rendering.
- Roughcast, Pebbledash, Tyrolean.
- Concrete - all types.
- Concrete bricks and blocks (including lightweight).
- Bricks.
- Exterior quality composition cement board.
- Roof tiles, clay or concrete.
- Asbestos and asbestos tiles.

COVERAGE:

4 to 8 square metres per litre, depending on porosity and texture of the substrate. The advised coverage should not be exceeded.

AVAILABILITY:

Supplied in 5 litre containers.

STORAGE:

Flammable, keep in a cool place and away from naked flame. Flash point of 36°C. Not normally affected by frost.

SPECIFICATION:

Surfaces should be sound, clean and as dry as possible, and faults/cracks in the structure should be rectified.

1. Moss, lichen and algae growths must be treated using LICHENITE in accordance with MGC specification.
2. Loose and friable materials should be removed by stiff bristle (not wire) brushing. DETERGENTS must not be used in washing down or other surface preparation.
3. Protect all glazing and mask as required. Masking tape must be removed before HALOSEAL becomes dry. Shake container before use - **DO NOT DILUTE** or mix with other products.
4. Apply one coat of HALOSEAL liberally by brush or low pressure spray, (not airless spray), until suction/absorbency of substrate is satisfied. If applying a second coat, allow a minimum of one hour and a maximum of four hours between coats. It is essential that the second coat is applied before the first coat has fully dried.

APPLICATION GUIDANCE:

Do NOT apply in wet or frosty weather or when there is a risk of same during drying time.

Drying time is dependent upon temperature, humidity and absorbency of substrate, normally 6 to 12 hours. Clean brushes and spray equipment immediately after use and remove any splashes or over-spray with white spirit.

It is recommended that on very porous surfaces a second coat of HALOSEAL be applied to ensure long term protection. Balcony and garden walls must be treated both sides and soldier courses/coping stones should receive two coats.

HALOSEAL may be over-painted after 4-6 weeks with BIOCHECK S.P. masonry paint.

HALOSEAL should NOT be used on painted surfaces or high density/low suction substrates such as glazed bricks, faience tiles and engineering bricks.

DURABILITY CONSIDERATIONS:

Long-term weathering tests have been carried out on HALOSEAL. The results given in the following tables show percentage reduction in water absorption. These figures are obtained by comparing, in a standard test, the water absorbed by a HALOSEAL treated brick and an untreated brick.

If A represents the weight of water absorbed by an untreated brick, and B the weight absorbed by an identical treated brick, the effectiveness of the treatment can be expressed as follows:-

$$\frac{(A-B) \times 100}{A} = \text{Percentage reduction in water absorption}$$

Percentage reduction in water absorption.

Test Material	Standard Brick	Bath Stone
Initially	99.6	99.8
1 year	99.5	99.0
2 years	99.2	98.9
3 years	98.6	97.4
4 years	97.5	93.6

(a) BRICK

Percentage water absorption after standing in 1/2" water.

Hours	Untreated Brick	Treated Brick
1	50.1	0.076
3	63.8	0.16
5	64.1	0.198
24	64.8	0.211
48	65.2	0.211
72	66.7	0.211
96	67.2	0.211

(b) BATH & PORTLAND STONE

These stones, which represent the more alkaline types of building materials and which have hitherto been difficult to waterproof, were treated by brushing HALOSEAL onto the surface. Percentage water absorption after standing in 1/2" water.

Hours	Untreated Stone	Treated Stone
1	2.17	0.016
18	6.73	0.016
24	7.75	0.016
48	10.4	0.016
78	10.9	0.016
113	11.14	0.016



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