



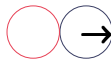
## ( TECHNICAL BULLETIN )

ASTEC DEHYDRACRETE CEMENT RENDERS  
WATERPROOFING FOR CEMENT AND MASONRY



### PRODUCT TYPE

100% Acrylic Waterproofing Sealant.



### DESCRIPTION / USE



1.1 Application of Astec Hydraseal

**Hydraseal** is a 100% acrylic, hydrophobic waterproofing sealant that, once cured, provides a positive waterproof seal to masonry surfaces. Carefully graded washed silicas, cement, many product control additives and polyester reinforcing are dry blended to provide two separate components ready to mix on site.

The mortar paste, once layed and dry, produces a flexible waterproof film with minimal drying shrinkage that exhibits outstanding adhesion to most clean dry surfaces. Hydraseal

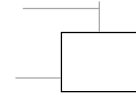
has good low temperature flexibility to -8°C and good resistance to re-emulsification in damp conditions. The product is formulated to provide a unique water bleeding effect where water does not penetrate the cured film, it either beads on the surface or immediately runs off.

The cured film of Hydraseal will provide a flexible well adhered skin to the substrate that has good resistance to hydrostatic pressure (see test results). The product has proven to provide good long term resistance to cracking, unsightly efflorescence and remains flexible over time. Unlike bitumen, it does not dry out and become brittle with time through the loss of any constantly evaporating solvents.

Hydraseal is not designed as a decorative coating, although the product dries with a render like appearance. Hydraseal will provide only moderate impact resistance as the film is soft and designed to be flexible, therefore care should be taken during back fill operations.



*Astec Paints are a 100% Australian owned company committed to the research and development of technologically advanced coatings that provide premium durability against our harsh Australian conditions. Our coatings are manufactured with high regard for worker safety and environmental care and will provide you with absolute confidence in long term performance.*



DESCRIPTION / USE



Where Hydraseal is to be used on surfaces that are prone to cracking the product should be reinforced with Deckweb or Sontara polyester matt and taping membrane.

**MIXING**

Hydraseal is a two part mix comprising of one 15ltr tub of dry mix and one 15ltr tub of wet mix. The wet and dry mix are combined at a 1:1 ratio on site prior to application.

- Thoroughly mix both wet and dry mix with a low speed drill mixer
- Measure equal amount of wet and dry mix into two separate clean containers
- While the mixer is turning in the wet mix slowly add in the dry mix until a lump free paste is achieved and mix for at least 1 minute after the entire dry component is added
- Allow the mix to stand for 3 minutes
- Remix the paste for an additional 1 minute to break the initial set then the paste is ready for use.

**APPLICATION**

Hydraseal can be applied by brush, roller, trowel or hopper gun. The most popular application method is to apply the product to the wall by hopper gun, spread smooth with a steel trowel then brush finish to remove any trowel marks.

**PRODUCT DATA**

Colour	Dark Grey
Pot Life	Up to 2 hours (temperature dependant)
Drying Time	1 hour touch dry, 8 hours dry, 7 days full cure
Wash Up	Water
Thinning	Do not thin

**HYDRASEAL TEST METHODS**

Test blocks consisting of cinder type composition pier block measuring 8 x 8 inches with a hollow center cavity were cemented to 8.25 x 8.25 x 0.5 inch concrete base plates using a latex modified mortar bed. After a 24 hour cure, the pier block/base plate composite was sealed top and bottom with two brush applied coats of commercial waterproof masonry paint. The paint was allowed to cure three days in ambient conditions. The mortar base coats under evaluation for waterproofness were then trowel applied to the four remaining unsealed sides of the pier blocks. Two, and in one experiment three, coats of basecoat mortar were applied with a 24 hour cure @ 77°F 50% Relative Humidity between coats. After the final mortar skim coat had cured 24 hours, the hollow center cavity of the block was filled with tap water and kept filled for 7 days @ 77°F 50% RH to ensure equilibration of the water throughout the block walls. After 7 days the test block was secured in a jig test with a sealable top plate assembly having a gasket, pressure fitting nipple, shut-off valve, and guage. The top plate was clamped down tightly to avoid water and air leakage and air pressure is applied at 4 psi. The pressure was maintained for 30 minutes, the shut-off valve was then closed, and the apparatus left in place for 24 hours. After 24 hours stand-time, this cycle was repeated again. After each cycle of pressurization/standing (2 cycles totaling 48 hours), the block was examined for water passage through the mortar coats as evidence by pinholing, loss of mortar adhesion or mortar softening.



HYDRASEAL TEST RESULTS



HYDRASEAL

PROPERTIES

RESULTS

**Table 1 - Resistance to Hydrostatic Pressure (TT-P-001411)**

Substrate: Cinder type pier block, 8x8x8 inches

**Mortar Identity**

APA 19672 (HYDRASEAL)

Pass

2 trowel applied mortar skim coats to an estimated total thickness of 1/16 inch [without mesh]

**Table 2 - Flexibility (Mandrel Bend Method)**

Substrate: P-121-10N Black Vinyl Leneta Charts

Cure: 7 days @ ambient conditions

Mortar Thickness: 1/16 inch (without mesh)

Temperature °F:

75°

40°

Mandrel Diameter, in.:

4

2

1

0.5

4

2

1

0.5

**Mortar Identity**

APA 19672 (HYDRASEAL) Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

**Table 3 - Tensile/Elongation**

Cure: 7days @ ambient conditions

Mortar Thickness: 1/16 inch (without mesh)

**Mortar Identity**

APA 19672 (HYDRASEAL)

Tensile @ Break (psi)

41.1

Elongation, %

9.4

HYDRASEAL

PROPERTIES

RESULTS

**Table 1 - Heat Age Stability @ 60°C**

Admix Identity:

APA 19672 (HYDRASEAL)

Latex:

100% Acrylic

Lot No.:

19672

Initial: [pH]

9.6

[Viscosity, Paste Units]

105

After 5 days @ 60°C: [pH]

9.5

[Viscosity, PU]

104

After 10 days @ 60°C: [pH]

9.3

[Viscosity, PU]

96

**Table 4 - Freeze/Thaw Stability**

Identity:

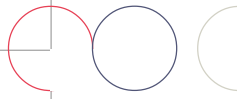
APA 19672 (HYDRASEAL)

Cycles Passed: [-20°C to + 25°C]

4 [gelled on 5th cycle]

**APPLICATION NOTES**

THE USE OF THIS PRODUCT ON ANY SURFACE OTHER THAN FRESH, CLEAN, WELL BOUND CONCRETE MAY REQUIRE THE USE OF ADDITIONAL SURFACE PREPARATION AND OR SEALANT APPLICATION. CONTACT ASTEC PAINTS TECHNICAL STAFF FOR ADDITIONAL INFORMATION.



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Astec Paints Australia Pty. Ltd.  
24 Pinn Street St. Marys  
South Australia 5042

Telephone +61 08 8277 6067  
Facsimile +61 08 8277 6291

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