

# HYPERDESMO<sup>®</sup>

Waterproofing Leadership

## CONCRETE ROOF WATERPROOFING

Exposed Concrete Roof waterproofing system based on HYPERDESMO.



### A

#### General Conditions

##### Equipment

The following application equipment is at minimum required: Protecting clothing: Protective overalls and gloves

Mixing equipment: 1KW slow speed drill, 400 or 500 rpm and suitably sized mixing vessel.

Application equipment: notched trowel, squeegee or roller. Airless spray machine can be also used.

### B

##### Working Weather Conditions

Application temperature range: 5°C to 35°C. Avoid dew point conditions during application.

Relative humidity must be no more than 95% and substrate temperature must be at least 3°C above measured dew point temperatures. Do not apply under rain or snow.

If temperature is above 35°C, the following guidelines are suggested:

1. Store materials in a cool environment, avoiding exposure to direct sunlight
2. Keep application equipment cool and dry.
3. Try to avoid application during the hottest hours of the day.

## C

### System Products

1. Primer: MICROSEALER-50, or AQUASMART-DUR,
2. Sealant: HYPERSEAL-EXPERT-150,
3. Main Membrane: HYPERDESMO-HAA,
4. Topcoat: HYPERDESMO-ADY-E.

## D

### Surface Preparation

Proper preparation of the substrate is essential for complete adhesion and successful application.

1. New concrete or other cementitious substrate should be at least 28 days old.
2. The substrate should be clean and free of loose particles, oil, grease.
3. Substrate should be free of any irregularities and flat. If needed, it should be grated with the appropriate mechanical equipment in order to achieve a flat and sound surface.
4. The substrate should be free of dust. Vacuum treatment or/ and high-pressure washing is suggested to remove dust.
5. Primer application can be done over wet concrete too. But any ponding water should be removed before primer application.

## E

### Substrate Priming

Primer: MICROSEALER-50 or AQUASMART-DUR primer with consumption of 200 ml or gr/m<sup>2</sup>.

1. **MICROSEALER-50** is a low viscosity polyurethane based primer. You choose this primer if your concrete surface is porous. MICROSEALER-50 primer will penetrate, stabilize and seal the concrete surface in depth. After MICROSEALER-50 application you should wait at least 12 hours in order to apply the main membrane. Apply the main membrane within maximum 7 days after primer application.



2. **AQUASMART-DUR** is a medium viscosity epoxy based primer. You choose to apply this primer over sound concrete surface. AQUASMART-DUR primer will create a slight film sealing the concrete and increasing the adhesion. After AQUASMART-DUR application you should wait at least 12 hours to apply the main membrane. Main membrane application has to be done within 48 hours after AQUASMART-DUR application. AQUASMART-DUR is completely solvent free and low VOC primer. If negative pressure humidity barrier is required, increase total consumption of AQUASMART-DUR at minimum 500 gr/m<sup>2</sup> in 3 successive layers.



Both primers can be applied with roller or/and airless spray machine. Notes:

1. If it rains after primer and before main coat application, you may need to apply again one coat of primer.
2. More primers are available for special cases, surfaces and weather conditions.
3. For more information about surface preparation please contact our technical assistance team.

## F

### Dilatation Joints and Inner Angles

Dilatation joints and inner angles should be treated with HYPERSEAL-EXPERT-150 polyurethane based sealant or HYPERSEAL-25LM-S.



## G

### Water Proofing Membrane

Apply HYPERDESMO-HAA in 2 successive layers with minimum total consumption 1.7kg/m<sup>2</sup>. Application can be done with notched trowel, squeegee, roller, or airless spray machine.



## H

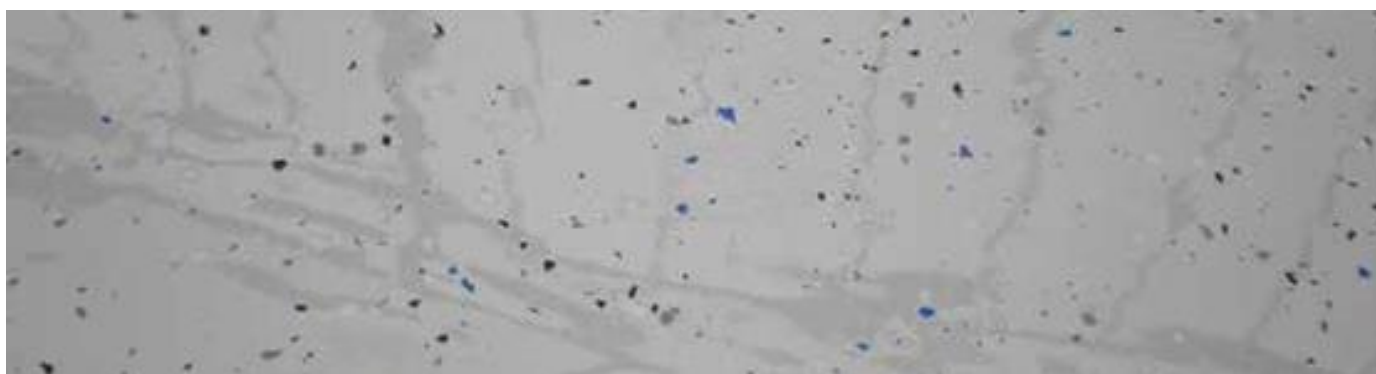
### Top Coat

For abrasion resistance and color protection you should finally apply a topcoat of HYPERDESMO-ADY-E (Neutral) pigmented at the desired color. Total consumption of HYPERDESMO-ADY-E (Neutral) should be 0.2 -0.4 kg/m<sup>2</sup> in 1- 2 successive coats over the well cured HYPERDESMO-HAA surface. Total consumption depends on traffic



conditions. If anti-slippery effect is required, natural dry quartz or corundum aggregates can be broadcasted over the fresh first layer of HYPERDESMO ADY-E (Neutral), before the second and final coat of HYPERDESMO-ADY-E (Neutral).

For decorative color chips finish, you apply the first coat of HYPERDESMO ADY-E (Neutral), pigmented at the desired color with ALCHIMICA's color pastes. Over the fresh first coat of HYPERDESMO ADY-E (Neutral), you broadcast the color chips. When the first coat cures well, you apply on top a second coat of HYPERDESMO ADY-E (transparent).



## I

### Cleaning



Tools and equipment should be cleaned immediately using SOLVENT-01 (or water for AQUASMART-DUR). Tools that have been used for AQUASMART-DUR application should not be re-used to apply HYPERDESMO-CLASSIC or HYPERDESMO-ADY-E

## J

### Precautions and Variations.

Please consult above referred products technical data sheets (TDS) and safety data sheets (SDS).

This method statement is offered by ALCHIMICA as a 'summary proposal' for exposed concrete roofs. For more information and technical support, please contact ALCHIMICA at: [info@alchimica.co.za](mailto:info@alchimica.co.za).

Where alternative methods are to be used, these must be submitted to ALCHIMICA for approval. ALCHIMICA will not accept responsibility or liability for variations to the above method statement under any other condition.

## Products



AQUASMART-DUR



MICROSEALER-50



HYPERSEAL-EXPERT-150



HYPERDESMO -HAA



HYPERDESMO-ADY-E

