

ADCOSEAL 255

One-component Sodium Silicate based Liquid Sealer for Cement-based Substrates

ADCO
Construction-
and Mining
Chemicals

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established 1994

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DESCRIPTION

ADCOseal 255 is a one-component solvent-free sodium silicate based product supplied in liquid form with a clear to pale appearance. ADCOseal 255 is UV-stable rendering it suitable for interior as well as exterior applications. The product is supplied in concentrate form and may be diluted with clean potable water – depending on the uses. It reacts with lime – available as a by-product from the cement hydration reaction. ADCOseal 255 can be applied to substrates of Portland Cement, Portland Cement blends incorporating mineral extenders, fly ash, slagment or silica fume as well as to refractory cement surfaces.

MATERIAL CHARACTERISTICS AND APPLICATIONS

ADCOseal 255 finds a wide range of applications including the following :

- Sealing of concrete substrates by densification of the final pore structure.
- Reduction of dusting of concrete floors.
- Improving resistance to abrasion and mechanical wear.
- Protection against weathering.
- Reduction in permeability thereby enhancing durability in terms of chemical resistance.
- Improved performance in high temperature exposures for refractory systems.
- In conjunction with purpose-designed concrete mixes, ADCOseal 255 impregnation will yield improved resistance to oil and fuels.
- Correctly applied ADCOseal 255 will yield a greatly improved cleanability of substrates.

ADCOseal 255 is applied onto clean, prepared surfaces. Use stiff brooms, grinders or water blasting to clean substrates to be treated. The aim is to introduce the product into the surface by penetration (using water as carrier) until saturation level. In general we recommend considering three concentrations :

- 'First dilution' - 1 Part ADCOseal 255 to 2 parts potable water (by volume).
- 'Second dilution' - 1 Part ADCOseal 255 to 1 part potable water (by volume).
- 'Third dilution' - ADCOseal 255 – as supplied.

A prepared surface for ADCOseal 255 treatment will be free of loose dust / friable material, surface damp, and older than 7 days. Prepare the dilutions as per above and apply by roller / brush / backpack spray or squeegee for large surface areas, ensuring the product per application is spread efficiently to facilitate penetration and prevent ponding that may lead to localized gelification.

The recommended time frame between applications is 4 – 6 hours. Where a whitish precipitation forms, over-saturation has taken place. ADCOseal 255 may be applied as sealer and impregnation treatment to mineral pigment coloured concrete and plaster surfaces.

PRODUCT DETAILS

Packaging	5 litre, 25 litre or 200 litre
Storage	Dry, cool (10°C to 25°C), under roof
Shelf life	6 – 8 months from date of manufacture if stored correctly
Pot life	30 – 40 minutes at -25°C, working in elevated temperature conditions will have gelification commence before penetration into the substrate

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PRODUCT DETAILS (cont'd...)

Coverage Depending on the porosity of substrate, the coverage varies, as guideline –

For friable / porous substrates, use

- 4 – 8 m² per litre for first dilution
- 4 – 8 m² per litre for second dilution
- 4 – 6 m² per litre for final coat

For dense, sound substrates, use

- 6 – 8 m² per litre for second dilution
- 4 – 6 m² per litre for final coat

Within the specified pot life window, tools shall be cleaned using water. After reaction, mechanical means will remove product. During application, please avoid spillage or product to surrounding members such as glass, wood, painted surfaces – if necessary remove using clean water without delay.

Where further surface coverings are required over previously treated ADCOseal 255 surfaces, please consult our technical division.

SAFETY

ADCOseal 255 contains solvents and is inflammable. The alkalinity of the product calls for correct and applicable safety measures during handling, mixing and installation. Standard industrial precautions apply such as protective clothing, gloves and eye goggles. Emptied product containers may contain remains of product that is flammable and should be handled accordingly. No special training or equipment is required.

Remember : Keep away from children, handle responsibly and consider the environment.

TECHNICAL SUPPORT

Detailed method statements for installation-specific requirements are available on request.

UPDATE

May 2017.

This supercedes all previous documentation.