

ALOCIT 28 SERIES SPECIFICATION AND GUIDELINES



alocitsystems

1 Alocit Solvent-Free Products

Note: All Alocit materials shown are 100% solids and surface tolerant

Application Conditions	Product
Wet, Dry, Underwater, Oily	28.15 200-400 microns/8-16 mil epoxy primer/finish available in colors*
Wet, Dry, Underwater, Oily	28.14 100-200 microns/4-8 mils zinc rich epoxy
Wet, Dry, Oily	28.95 Low viscosity epoxy primer/sealer
Wet, Dry	28.96 Thixotropic epoxy gel for filling cracks and holes

* STANDARD COLORS: White RAL 9003, Grey RAL 7004, Black RAL 9017
Non Standard Colors to BS/RAL/FED STD 595

ALOCIT 28.15 EPOXY COATING PRIMER/FINISH

STANDARD GRADE (All temps above water - underwater below 17°C/63°F)
TROPICAL GRADE (for underwater application at temperatures above 17°C/63°F)

FEATURES

- Outstanding adhesion, on wet, oily surfaces & underwater
- Surface tolerant
- Environmentally friendly - solvent free and no heavy metals
- Proven corrosion protection, including Accelerated Low Water Corrosion (A.L.W.C.)
- Approved for use by US Navy for Bilges, Freeboards, Sanitary Spaces, Rast Track, Vent Plenums, Ducts, Trunks and Overboard Discharge Piping
- Approved by the US Corps of Engineers for wet area application
- Abrasion resistant
- A protective coating resistant to many alkalis, some acids, oils, sewage, mechanical wear and chemical attack
- High build (200 - 400 microns/8-16 mil) per coat
- DNV B1 rating for Ballast Tanks

USAGE

As a hygienic, easily cleaned finish for concrete, steel, ironwork providing a hard wearing attractive surface.

For preservation of steel structures, industrial floors, cellars, bund areas, laundries, sheet pilings, locks and channels, docks, harbors, oil rigs, oil tanks, ships hulls and bilges, bridges, conduits, caverns, industrial plants for wet or oily surfaces, railway and subway tunnels, underpasses, swimming pools etc. Can also be used as self-priming coat over minimal surface prep.



ALOCIT 28.14 EPOXY COATING-ZINC PRIMER

FEATURES

- Outstanding adhesion on oil contaminated and underwater surfaces
- Environmentally friendly - solvent-free and no heavy metals
- Long term stability
- Especially designed for application onto clean, profiled steel
- Excellent corrosion protection, Accelerated Low Water Corrosion (A.L.W.C.)
- For use in temperate and tropical climates
- Excellent performance in marine environments
- Indispensable in industry where moist, wet or slightly oily conditions exist

USAGE

Two-pack epoxy primer containing zinc. Solvent-free with outstanding adhesion qualities on both wet and dry surfaces providing excellent corrosion control. Should be used as a primer to clean, profiled steel surfaces in conjunction with Alocit 28.15 or other compatible finishing coat.

ALOCIT 28.95 EPOXY PRIMER/ SEALER

FEATURES

- Outstanding adhesion, on damp and oil contaminated surfaces
- A two part, clear epoxy resin, free of solvents, with a very low viscosity
- A sealant with low permeability to moisture
- Fully hardens at temperatures down to 2°C/34°F
- Bonds structural elements of almost any kind firmly
- Bonds new concrete to old concrete
- Usable as a mortar if mixed with quartz or finely crushed stone
- High wear resistance

USAGE

For repair of cracked concrete even if damp or wet, bonding of broken concrete pieces, steel anchors or new concrete to old concrete. Use on dry or damp or oily surfaces as a bonding agent, sealer, injection sealer or primer for repair and construction of highways etc.

- Primer for Alocit and other products, on non metallic substrates
- Adhesive for structural materials Injection sealer and adhesive to improve resistance and restore material strength
- Floor covering with high wear resistance when filled with quartz, or a mortar for repair of damaged concrete.
- Non-hygroscopic bonding agent for insulation material, particularly granular insulation



ALOCIT 28.96 THIXOTROPIC FILLER

FEATURES

- A sealant, which is also usable as a mortar if mixed with small amounts of quartz
- A two component, clear epoxy resin, free of solvents, with the consistency of a gel
- Bonds concrete, artificial and natural stone, wood, metal, bricks, ceramics, fiberglass, plastics, insulation and many other materials firmly and can be applied on dry or damp surfaces.
- Specifically designed for vertical and overhead application
- An adhesive for ceramic, concrete, natural or artificial stone, bricks, insulation
- A mortar to level, fill and repair cracks, small indentations or holes and to bond broken edges

USAGE

For bonding of ceramic tiles on concrete or directly onto existing ceramic tiles; for bonding of broken pieces of concrete, stone, etc; for use in cellars, garages, laundries and vaults, silos, internal sealing of tunnels, conduits, and caverns, repair of swimming pools; for industrial plants, railway and subway tunnels, underpasses and bridges, harbors, locks, dams and channels, for coating of wood and plastic materials. Also used as the base coat on vapor barrier systems for insulation.



2.0 PROJECT EXECUTION

2.1 INITIAL SURVEY

Prior to making a quote or deriving a cost the following details should be ascertained:

Accessibility to work site and to work area - scaffolding etc
Substrate type and condition - corrosion degree (If surface preparation is required)
Type and age of substrate e.g. Round or Sheet Piles
Zone rating - Hazard / Non Hazardous (Oil & Gas)
Allowable method of surface preparation - Grit blasting or Water Jetting.
In situ operation or shut down activity.
Permit to work, submission of Job Hazard Analysis & Work Procedure.
Allowable working hours and possibility of extension.
Equipment certification.
Personal health check - Drug & Alcohol Test.
Personal Protection Equipment requirement.
Client's Quality Control requirement - Wet/Dry Film Thickness etc.
Client's requirement on job completion documentation.
Water/ambient/substrate temperature at time of application.

2.2 THEORETICAL COVERAGE RATE M² PER KG / Ft² per Pound

	28.14		28.15		28.95	
DFT in Microns/Mil	M ² /Kg	Ft ² /lb	M ² /Kg	Ft ² /lb	M ² /Kg	Ft ² /lb
1000/40	0.54	2.64	0.60	2.93	0.92	4.49
500/20	1.10	5.27	1.20	5.86	1.84	8.98
250/10	2.20	10.55	2.40	11.72	3.70	17.97

Note: US Gal (3.7 ltr) of material will cover 1600 ft² at 25 microns/1 mil. See weight/volume table below

Suggested wastage factor

28.15 10% - 20% depending on profile/underwater application etc

28.14/28.15 - 20% -30% for Airless Spraying.

28.95 - 10% - 20% for absorption

CONVERSION OF ALOCIT KIT SIZES IN KG TO LITRES & US GALLONS (3.7 ltr)

based on a specific gravity of 1.55 mixed

1.5Kg	= 0.95 Litres	= 1 Quart
3.0Kg	= 1.9 Litres	= 0.5 Gallon
6.0Kg	= 3.7 Litres	= 1 Gallon



3.0 WORK PROCEDURE FOR ALOCIT APPLICATION

3.1 SURFACE PREPARATION: STEEL - ABRASIVE BLASTING

Remove all millscale, corrosion deposits, marine growths, chemical compounds etc. Check for rogue peaks and laminations, take remedial action. Remove dust and other contamination. A blast profile of between 50 and 100 μ / 2 - 4 mil is the aim. Basic standards for blast cleaning are the Swedish Pictorial Standards / ISO-8501-1 / SSPC/NACE. We recommend SA 2/SP6/NACE 3 as a minimum, and SA 2.5 /SP10/NACE2 as the optimum.

3.2 SURFACE PREPARATION: STEEL - MECHANICAL

Mechanical cleaning by needle gunning, rotary wire brushing, grinding etc. Remove all contamination/dust, flaking paint etc. Surface profile should be a minimum of 50 μ / 2 mils for optimum performance.

3.3 SURFACE PREPARATION: STEEL - HYDROBLASTING

Hydroblasting to remove all previous coatings, corrosion, marine growth etc. High flow rates and high speed rotating heads are recommended. Blast media can also be added for increased effectiveness. Some old steel may not respond to standard cleaning techniques. In such cases ultra-high pressure (UHP) water blasting may be required with additional testing for residual salt levels.

3.4 SURFACE PREPARATION: CONCRETE

The substrate should be free from high levels of laitence, dust, large surface voids etc. Sometimes brush blasting (dry) or hydroblasting are appropriate methods, especially for large areas, large cracks/surface voids should be repaired prior to coating.

3.5 SURFACE PREPARATION: NON-FERROUS METALS

Light surface abrading, remove dust etc. If there are any queries re surface preparation prior to applying the Alocit coating system, please contact our technical dept. for further advice.

3.6 SURFACE PREPARATION: NON-METALLIC

If possible, surface abrading, then remove dust etc. If in doubt, apply a test patch before coating.

3.7 APPLICATION: FLASH RUST & CONTAMINATION

First coat should be applied as soon as blasting and cleaning is completed with surfaces cleaned to SSPC SP12 2L. All traces of residual dust and abrasive blast medium should be removed prior to coating.

NB: For underwater abrasive blasting a larger grade of garnet should be used.

3.8 APPLICATION: STRIPE COATING EDGES & WELD AREAS

It is recommended to stripe coat all edges and weld areas.



3.9 APPLICATION: ON WET, SUBMERGED OR PITTED STEEL

First coat can be Alocit 28.14* or 28.15.

Apply material by brush method using firm circular motion to spread the coating evenly over the surface. Pay particular attention to pitted areas to ensure no moisture is retained and that they are fully covered with all edges and valleys of the pits covered. Use only recommended short-bristled round-head brushes. An airless spray pump unit using a special Alocit brush adaptor can be used for continuous application underwater. Apply the coating to achieve specified** dry film thickness per coat.

3.10 APPLICATION: ON DRY STEEL

Apply material in separate and distinct coats using brush, spray or roller. Over-coating of preceding coat should be undertaken well before it has reached maximum cure stage - see 3.13. When applying Alocit by airless spray above water, blow any water from the surface of the preceding coat before commencing application.

3.11 APPLICATION: SPRAY ON DRY STEEL

Apply Alocit in separate and distinct coats by airless spray using a 68:1 ratio*** spray pump.

3.12 APPLICATION ON CONCRETE

Surfaces should be free from contamination. Apply Alocit 28.95/28.15 by brush, roller or airless spray, to achieve specified dry film thickness**. On damp/green concrete apply material by brush using firm circular motion to spread the coating evenly over the surface. Appropriate allowance should be considered for absorption when estimating coating material to be used. Alocit must be over coated before it has reached maximum cure stage.

3.13 OVER-COATING

Once the material is touch dry it can be over-coated (guideline 6-8 hours @ 20°C/68°F). All coatings should be over-coated well before they have fully cured (guideline max 3 days @ 30°C/86°F). If material has cured before the second coat has been applied, the surface must be abraded to provide a key before application. Times given are guidelines - curing is temperature dependent - refer to the technical data sheet for details and adapt to local conditions. Alocit materials can be over-coated underwater.

* 28.14 should only be applied to rust-free surfaces

** Applied thickness will be dependent on the surface and service conditions.

*** When spraying 28.15 Tropical an airless pump ratio of 74:1 may be needed.



4.0 GENERAL GUIDELINES

- Keep product cool, store in shade on site. Avoid the exposure of material and equipment to direct sunlight or heat before mixing or adding hardener. Pot life will be severely shortened if product becomes overheated.
- When using a mechanical mixer take care not to aerate mixture. Air bubbles may create pinholes and over-mixing reduces pot life.
- In damp, wet, oily, submerged or pitted areas a firm circular motion must be used with sufficient pressure to ensure coating displaces moisture and bonds to substrate.
- Coverage rates are just a guideline. For further information on specification contact Alocit Technical Department. Refer to Technical Data Sheet.
- Please note Alocit 28.95 is not designed for application underwater.
- Apply 28.14 only to a rust free surface
- When airless spraying ensure surface is dry - never spray over a wet surface.



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