



VOGEL
SYSTEMS

Method Statement

**SPRAYED POLYUREA
MEMBRANE**

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SCOPE

The aim of this method statement is to provide and maintain effective quality control procedures and to execute the work in compliance to standard and good practice at all stages during the execution of sprayed polyurea membrane works on the project site .



Application of sprayed polyurea membrane works.

PURPOSE

The purpose of this method statement is intended to inform the consulting engineer how the work will be delivered on site associated with risks and precautions to be taken during working on site.

The purpose of this statement:

- To outline how the work will be achieved on site.
- To meet the drawings and specifications requirements.
- To predict possible problems.

SPECIFICATIONS CLAUSES

- Project specification.
- Approved shop drawing.
- Contract documents.

MATERIALS

- Primer (VogaFloor 120)
- Polyurea (VOGA ALIPHATIC-E)



VOGA ALIPHATIC-E



VOGAFLOOR 120

TOOLS & EQUIPMENT

- Paint Brushes/ Rollers



- Paint Sprayers



AS REQUIRED.

- Air compressor



AS REQUIRED.

- Grinder



- Hand Tools



Trowel , Spatula or putty knife ,scraper ,hammer ..etc).

- Polyrurea Machine



CONSTRUCTION PROCEDURES

General

- The area to be coated shall be marked on the drawings and on the structure.
- Any further areas to be coated shall be at the discretion of the Engineer and subject to re-measurement.
- All deviations from the original Bill of Quantities or scope of works must be agreed in writing with the Engineer before application starts.

Preparation

Requirements for Preparing New Concrete Surface

- Age of new concrete should be a minimum of 28 days before application of VOGA POLYUREA-system. Minimum of compressive strength of concrete substrate should be 25 N/mm²
- Check concrete surface pull off test should not less 1.5 N/mm² .
- Removing of curing membrane form the concrete surface by using suitable mechanical mean to avoid interfering with adhesion or performance of applied VOGA POLYUREA-system.
- Checking for excess moisture prior to application of coating system, check for the presence of moisture beneath the surface according to the Plastic Sheet Method refer to ASTM D-4263 or by using concrete moisture content meter.
- The moisture content should be not exceeding 4%.
- Removing of weak concrete laitance from the surface, or other foreign contaminants by using suitable mechanical mean before applying VOGA POLYUREA-system.
- Repair forms defects to fill or remove all form voids, honeycombs, and other surface irregularities with a suitable VOGEL Epoxy based repairing or patching mortar which is compatible with VOGA POLYUREA-system.
- Grind all form ties or other metallic protrusions below the surface and then patch or fill with a suitable VOGEL Epoxy based mortar material prior to coating of VOGA POLYUREA-system.
- Concrete surface should be cleaned thoroughly by using air pressure mean prior to application of VOGA POLYUREA-system.
- Before applying VOGA POLYUREA-system all voids, holes, honeycombs, cavities, cold joints, tie holes and static cracks without movement, once opened and routed to minimum depth of 2cm , must be repaired.



VOGA ALIPHATIC-E



VOGAFLOOR 120

CONSTRUCTION PROCEDURES

Personal safety requirements

- Follow the site's health, safety and environment policy at all times.
- Wear personal protective equipment at all times including hard hat, safety glasses, boots, gloves, air hood and masks as required.
- When using high-pressure plural component spray equipment, all personnel working in the application area must wear double-filter breathers with Occupational Safety and Health Administration (OSHA) ratings.
- When applying coatings in enclosed areas, all personnel working within the enclosed area must wear full-face masks with OSHA-rated supplied air respirators.

Priming the concrete

- Prime and seal the porosity of the substrate with solvent free epoxy primer or water- based epoxy primer with a coat of 0.2 to 0.3 kg/m³ depending on substrate porosity.
- Primer must be perfectly dry, between 24-48 hours depending on temperature conditions, before applying VOGA ALIPHATIC-E.

CONSTRUCTION PROCEDURES

Application

- VOGA ALIPHATIC-E is supplied ready to use by suitable spraying means.
- Apply two coats in perpendicular direction with a recommended thickness of about 2.00 mm, 3.00mm per total application.
- It is recommended the first coat to be applied with the minimum possible consumption, to check and detect previously any problem. Once checked, apply the remainder coat with its usual consumption.
- For outdoor applications exposed to UV-rays, once VOGA ALIPHATIC-E has cured 24 hours, apply as UV-barrier topcoat one or two coats of aliphatic polyurethanes (UV COAT).
- **In cracks greater than 2mm** once opened up and clean, should be treated with a suitable epoxy putty (VOGAFLOOR ® range) and sprayed with aliphatic polyurea coat.
- **Expansion joints** once opened up and clean, should be treated and filled by (Backing-rod) and sprayed with aliphatic polyurea coat.
- **For slip resistance lagoon beaches** we can produce anti-slip polyurea layer by controlling the pressure of the gun during spraying.
- **Dealing with polylock** once cleaned by air compressor, will be sprayed with polyurea.

Coverage

- Estimated consumption for VOGA ALIPHATIC-E is 0.8-1.00 Kg/m² per coat with an average thickness of about 1mm per coat, a total consumption of 2.00 Kg/m² and 2mm thickness in two coats.
- To get 3mm thickness apply coats immediately before it gets dry" wet on wet application " in 1.0 Kg/m² per coat with an average thickness of about 0.8-1.00 mm per coat.

RISKS

- Avoid any inhalation of vapours, avoid skin contact Wear protective gloves and protective goggles In case of skin contact, rinse immediately with soap and water In case of eye contact, bathe eyes with water at once, then consult a doctor Observe the guidelines concerning the handling of epoxy resins and amines issued by the Employer's Liability Insurance Associations.
- As with all chemical products, care should be taken, during use and storage, to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product has fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Re-seal containers after use.



WARRANTY

- Agree to maintain a 10 years warranty for any work that we have performed on your project.
- This certificate doesn't provide coverage for lost or destroyed areas . this warranty is limited to any setting that may occur and repair .
- Our warrant will be void if services are performed on your project by another company or in case of misuse or abuse prior to it's expiration.



HEALTH AND SAFETY

- Make sure that the workers involved in the installation of the epoxy resin floor coating are experienced and well trained.
- Every stage of the installation must be supervised properly. Check all the routes of material transportation and remove any form of obstacle that could cause accidents. There should be frequent cleaning during working hours.
- Every equipment used must be maintained in accordance with legal requirements.
- Electrical connections should be handled by qualified and approved electricians.
- The workplace must be barricaded and well protected to prevent unauthorized personnel. A work permit must be issued to every person by the main contractor before work starts on the site.
- Appropriate loading and offloading equipment should be provided by the contractor. All the equipment should be certified and handled by a qualified operator.
- Keep a material safety data sheet to ensure that materials are handled well especially chemicals. Major spill kit available and personal protective equipment must be made available to every personnel must be worn at all times.

STORAGE

- Store in dry conditions in the original packs. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced. Materials should be protected from frost.
- Make sure all the pads have the same temperature during the entire installation period. Lay down the pads 24 hours before the installation to allow them to get their original dimensions. Install all the pads in a single laying session in order to guarantee installation under similar conditions

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