

RFQ-2025-0521

Supply and Installation of Self-Leveling Flow Applied Epoxy Resin Floor Coating System for T&D Metering Room, Ground Floor, BPC Admin Building, Berakas Power Station

BILL OF QUANTITIES

1. The bid price for the works represents the full cost to BPC for the performance of the works by the Contractor. The rates in these bills shall include supply of approved types of epoxy paint, labour costs to operate, temporary works or any other PPE and safety training costs deemed necessary to complete the works as stated.
2. The Contractor’s bid price shall be in full compliance with the attached **Specification for the Application of Self-Leveling Flow-Applied Epoxy Resin Floor Coating System** and all relevant HSE rules and regulations implemented by BPC and Government Authorities.
3. The Contractor is advised to inspect the site to fully understand the scope of work prior to submitting the bid. No claims shall be entertained for incorrect and insufficient information at any point
4. All quantities in these bills are provisional and shall be re-measured upon completion of the works.

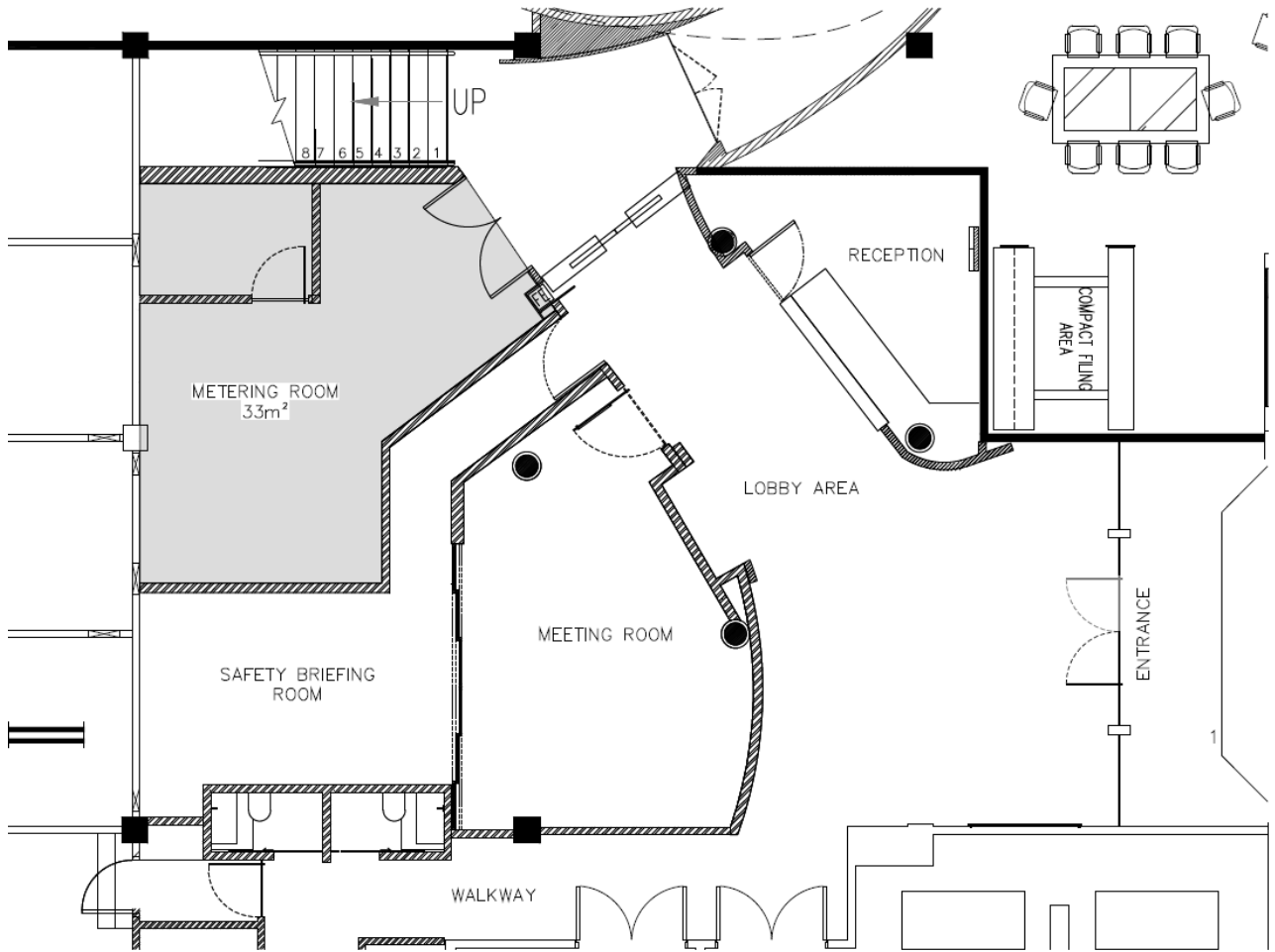
| <i>Item</i> | <i>Description</i> | <i>Unit</i> | <i>Qty.</i> | <i>Unit Rate</i> | <i>Amount</i> |
|--------------|--|-------------|-------------|------------------|---------------|
| A. | Surface Preparation. Scrape off and remove the existing floor tiles completely. Grind or chip all projections from the concrete. Remove any loose concrete, and clean and fill holes, cracks and other surface defects. In cases of severe profile where the surface needs to be restored, resurface with approved epoxy mortar. | sq.m. | 33 | | |
| B. | Floor Finishes Works. Supply and install self-leveling flow-applied epoxy resin floor coating system to the Metering Room. The epoxy resin floor coating system shall be undertaken by licensed applicator and in strict compliance to manufacturer's specifications and instructions. The following coating systems are acceptable to BPC: FOSROC Nitoprime 25 primer coat and Nitoflor SL2000; Estogard S200e, and Korepox 5635M Manufacturer /Model of the Proposed Coating System: Proposed Specialist Contractor: | sq.m. | 33 | | |
| TOTAL | | | | | |

Completion Time: days from Purchase Order Date

Date: _____

(Signature and Company Stamp)

Name :
 Position :
 Company Name :
 E-mail Address:



**LAYOUT PLAN
T&D METERING ROOM
GROUND FLOOR, BPC ADMIN BLDG**

Specification for the Application of Self-Leveling Flow-Applied Epoxy Resin Floor Coating System

1.0 Scope of Work

This specification covers the materials, surface preparation, application procedures, and quality requirements for the installation of a self-leveling, flow-applied epoxy resin floor coating system on concrete substrates. The system shall provide a seamless, durable, chemically resistant, and aesthetically smooth finish suitable for industrial, or cleanroom environments.

2.0 Materials

2.1 All materials used shall be supplied by a single approved manufacturer and shall be compatible with each other. The system shall consist of the following components:

- Epoxy primer
- Two-component self-leveling epoxy resin base and hardener
- Optional quartz filler (if specified)
- Optional topcoat or sealer (UV-stable, anti-slip, or chemical resistant, where required)

2.2 Materials shall be submitted for approval prior to commencement of works. All products shall be supplied with technical data sheets and Material Safety Data Sheets (MSDS).

3.0 Surface Preparation

3.1 Substrate Requirements. The concrete substrate shall be:

- Structurally sound and fully cured
- Clean, dry, and free from oil, grease, dust, laitance, surface contaminants, and curing compounds
- Moisture content not exceeding 4% by weight (CM method), unless a moisture-tolerant primer is approved and used

3.2 Surface preparation shall be carried out by mechanical means, such as vacuum-assisted diamond grinding or captive shot blasting, to achieve a surface profile equivalent to ICRI CSP 3 or better.

3.3 Repairs. All cracks, honeycombs, voids, or other surface defects shall be repaired using epoxy-based filler or approved repair mortar. Loose or delaminated areas must be removed and reinstated prior to coating.

4.0 Primer Application

4.1 *Mixing and Application.* The epoxy primer shall be mixed and applied strictly in accordance with the manufacturer's instructions. The primer shall be applied using a roller or brush to ensure uniform coverage and penetration into the substrate.

4.2 *Re-Priming.* Should the concrete surface remain absorbent after the first coat, or if pinholes are visible, a second application of primer shall be made.

4.3 *Curing.* Allow primer to cure tack-free before proceeding to the self-leveling layer. Curing time shall be in accordance with the product data sheet and shall typically range from 6 to 12 hours depending on ambient conditions.

5.0 Self-Leveling Epoxy Coating Application

5.1 *Mixing.* The self-leveling epoxy resin base and hardener shall be mixed using a slow-speed mechanical mixer for a minimum of 2 to 3 minutes until a uniform, homogeneous mixture is achieved. Quartz filler, where specified, shall be added gradually and mixed thoroughly.

5.2 *Application.* The mixed material shall be poured onto the primed substrate and spread evenly using a notched trowel or notched squeegee to the specified thickness (typically 2 to 3 mm).

5.3 *De-Aeration.* Immediately after application, the surface shall be rolled with a spiked (de-aeration) roller to eliminate entrapped air and aid in leveling.

6.0 Topcoat Application

A compatible epoxy or polyurethane topcoat shall be applied after the self-leveling system has fully cured. The topcoat shall enhance properties such as UV stability, anti-slip performance, or chemical resistance. Application shall be as per manufacturer's instructions.

7.0 Curing and Protection

- The coated floor shall be protected from dust, water, traffic, and other contaminants during the curing period.
- Light foot traffic shall only be permitted after 24 to 48 hours.
- Full mechanical and chemical resistance shall be achieved after 5 to 7 days (as per manufacturer's recommendation).

8.0 Quality Control and Inspection

- 8.1 *Visual Inspection.* The finished surface shall be free from pinholes, air bubbles, cracks, delamination, or other visible defects.
- 8.2 *Thickness Verification.* Wet film thickness shall be monitored during application. Dry film thickness shall be verified post-application using appropriate test equipment and in accordance with project specifications.
- 8.3 *Adhesion Testing.* Adhesion testing (e.g., pull-off test) may be conducted where specified, to verify bonding strength to substrate.

9.0 Health, Safety and Environmental Requirements

- All works shall be carried out in accordance with local health and safety regulations.
- Appropriate Personal Protective Equipment (PPE) shall be worn at all times.
- Adequate ventilation shall be provided during application and curing.
- All waste materials and unused products shall be disposed of in accordance with environmental regulations and the manufacturer's guidelines.