



## **METHOD STATEMENT FOR MARBLE GRINDING AND POLISHING WORKS**

### **1. Purpose**

This method statement defines the procedure for grinding, honing, polishing, and crystallization of marble flooring to achieve a smooth, durable, and high-gloss finish.

### **2. Scope of Work**

The scope includes surface preparation, grinding, joint filling, polishing, sealing (where required), crystallization, and final cleaning of marble floors.

### **3. Materials and Equipment**

#### **Materials**

- Steel Grinding Grits (0, 1)
- Resin Diamond Pads (50, 120, 240, 400, 800, 1500, 3000 if required)
- Epoxy or Mastic (for joint filling)
- Penetrating Stone Sealer
- Stone Top Sealer
- Italian Polishing Powder
- Crystal X Liquid
- Stone Shampoo
- Clean Water

#### **Equipment**

- Floor Grinding Machine (Wet & Dry capable)
- Single Disc Polishing Machine
- 3M Red Pad
- 3M White Pad
- Steel Wool Pad
- Industrial Vacuum Cleaner
- Spray Pump / Roller
- Water Supply Tools



## 4. Procedure

### 4.1 Surface Preparation and Grinding

- Inspect marble flooring condition and identify damages, uneven areas, and joint gaps.
- Carry out grinding and levelling using Steel Grit 0 and 1 for all marble types except white marble.
- For white marble, perform dry grinding and remove dust using an industrial vacuum cleaner.

### 4.2 Sealing (White Marble or Required Areas)

- After grinding and cleaning, apply a **penetrating stone sealer** evenly across the surface.
- Allow curing for **24 to 48 hours**, as per manufacturer's technical data sheet (TDS).
- After curing, proceed with wet grinding and polishing as per standard procedure.

### 4.3 Joint Filling

- Clean all joints thoroughly.
- Fill joints using epoxy or mastic as required.
- Allow proper curing before proceeding to further grinding.

### 4.4 Honing (Resin Grinding)

- Perform sequential honing using resin pads:
  - 50 grit
  - 120 grit
  - 240 grit
- Ensure uniform surface leveling and scratch removal between each stage.



#### 4.5 Polishing Process

- Continue polishing using resin pads in the following sequence:
  - 400 grit
  - 800 grit
  - 1500 grit
  - 3000 grit (if high gloss finish is required)
- Ensure a consistent shine and scratch-free surface at each stage.

#### 4.6 Cleaning and Powder Polishing

- Rinse and clean the floor using a 3M red pad.
- Apply Italian polishing powder using a 3M red pad in a controlled manner.
- Buff uniformly to enhance gloss.

#### 4.7 Final Cleaning

- Clean the surface using stone shampoo and a 3M white pad.
- Ensure complete removal of residue and polishing compounds.

#### 4.8 White Marble / Special Treatment (If Applicable)

- Apply stone top sealer by spraying or roller application.
- Buff excess material using a 3M white pad.
- Keep the floor undisturbed for **24 hours** for proper curing and drying.

#### 4.9 Crystallization Process

- Apply Crystal X liquid evenly on the surface.
- Buff using steel wool pads.
- Work in sections of approximately **1 m x 1 m (1 sqm)**.
- Continue until desired crystallized shine is achieved.



## 5. Quality Control

- Ensure uniform grinding without visible scratches.
- Confirm proper curing of sealers before next stages.
- Verify joint filling consistency and color match.
- Check final gloss level and surface clarity.

## 6. Safety Requirements

- Wear PPE including gloves, goggles, safety shoes, and dust mask.
- Ensure proper ventilation during grinding and chemical application.
- Handle chemicals strictly as per manufacturer guidelines.
- Maintain safe electrical connections for machines.

## 7. Completion

The marble surface shall be smooth, well-polished, stain-protected, and finished with a high-gloss or crystallized appearance as specified.