

Wanshield®62238

Solvent-Free Epoxy

Self-Leveling Floor Coating

Product Description

Wanshield®62238 Solvent-Free Epoxy Self-Leveling Floor Coating is a two-component flooring system with exceptional flow properties, suitable for thick application. Component A is a pigmented coating composed of epoxy resin, various eco-friendly additives, and pigments/fillers. Component B is a yellowing-resistant amine curing agent. The coating forms a smooth, glossy surface with rich, vibrant color and an elegant appearance, achieving a mirror-like finish. Resistant to corrosion from acids, alkalis, salts, oils, and other chemical media, it offers excellent abrasion resistance, compressive strength, and impact resistance. It is particularly suitable for environments requiring high cleanliness, aesthetics, non-toxicity, and sterility.

Product Features

1. Excellent flow properties produce a smooth, glossy, and aesthetically pleasing finish with outstanding decorative appeal;
2. High hardness provides superior wear and pressure resistance, excellent impact resistance, and the ability to withstand heavy loads without scratching;
3. Strong chemical stability offers dust and moisture resistance, easy cleaning, and convenient maintenance;
4. High purity, non-toxic, pollution-free, and environmentally friendly.

Recommended Uses

Widely applicable for indoor flooring in various public spaces, particularly those requiring cleanliness, sterility, dust-free environments, stain resistance, corrosion resistance, and mechanical wear resistance. Examples include parking garages, offices, retail stores, electronics manufacturing plants, pharmaceutical factories, hospitals, food processing plants, and laboratories.

Technical Specifications

Physical Parameters

| | |
|---|------------------------------------|
| Drying Time/h (Surface Dry) | ≤8 |
| Drying Time/h (Through Dry) | ≤48 |
| Initial Flow/mm | ≥140 |
| Pencil Hardness (Scratch) | ≥3H |
| Abrasion Resistance (750g/500r)/g | ≤0.03 |
| Slip Resistance(Dry Friction Coefficient) | ≥0.5 |
| Tensile Bond Strength/MPa | ≥2.0 |
| Impact Resistance (1000g Steel Ball) | Surface free of cracks and flaking |

Resistance to Alkali, Acid, Oil (20% NaOH, 72h; 10% H₂ SO₄, 48h; 120# Solvent Oil, 72h) No blistering, flaking, or cracking; slight discoloration permitted

Surface Treatment

Construction Requirements

1. For all new and existing concrete surfaces, concrete strength must reach C25 or higher, with flatness meeting the 2m straightedge tolerance of $\pm 3\text{mm}$.
2. The floor must undergo at least 28 days of curing before floor coating application to achieve optimal results.
3. Optimal floor coating application temperature ranges from 5°C to 35°C. Do not apply below 5°C, as this compromises project quality and cured film strength.
4. Substrate moisture content must not exceed 5%, with ambient humidity below 80%. Exceeding these limits may cause bubbling and other cosmetic defects.
5. Ensure the work area is well-ventilated and dust-free, but avoid strong drafts that could introduce dust particles and affect surface appearance.

Surface Preparation

Typically, grinding is performed to ensure complete removal of surface stains and loose debris down to sound concrete. Any concrete damaged by chemical exposure, loose sections, or contamination by any material should be removed down to sound concrete. Grinding removes surface dust, stains, and loose layers from the substrate while roughening the surface, thereby enhancing adhesion between the substrate and the epoxy flooring system.

Construction Guidance

Construction Method

Apply Primer

Use Wanshield®62201 Solventless Epoxy Primer or Wanshield® 62305 Universal Flow-and-Level Epoxy Primer. Apply with a trowel or roller. Apply at a rate of approximately 0.15 – 0.25 kg/m², ensuring full coverage without overspray. Avoid excessive thickness. Apply a second coat or touch up missed areas as needed.

Intermediate Mortar Layer Method

After the primer is fully cured, mix components A and B of Wanshield®62208 Solventless Epoxy Intermediate Coat according to the specified ratio. Add an appropriate amount of 80-120 mesh quartz sand and stir thoroughly. Apply with a trowel, ensuring no missed areas or material buildup. Since the intermediate mortar layer typically has a rough surface, apply putty to level the substrate and fill gaps. This ensures a smooth surface and decorative finish for the topcoat application.

Intermediate Putty Layer Application Method

After the intermediate mortar layer has fully cured, mix components A and B of Wanshield®62208 solvent-free epoxy intermediate coating according to the specified ratio. Add an appropriate amount of

quartz powder or putty powder, stir thoroughly, then apply with a trowel to level the surface. Remove dust from cut joints, pour the prepared putty mixture into the joints, and trowel to form a smooth surface. Ensure no missed areas or material buildup occurs.

Topcoat Application

Use Wanshield®62238 solvent-free epoxy self-leveling topcoat. Verify substrate, temperature, and airflow meet application requirements before mixing the coating according to the specified ratio. Before mixing, thoroughly blend components A and B separately using a high-speed mixer. Accurately weigh both components, mix them in the specified ratio, and blend thoroughly with the high-speed mixer to prevent sedimentation, layering, color variation, or incorrect ratios.

Pour the thoroughly mixed floor coating onto the surface. Apply evenly using a large notched trowel, controlling the film thickness and preventing material buildup or accumulation. Immediately use a needle roller over the applied area to release trapped air, eliminate bubbles, and assist in leveling.

Construction Parameters

| | |
|-----------------------------|---|
| Mixing Ratio (Weight Ratio) | Component A:Component B = 5:1. After mixing, thoroughly blend using a high-speed mixer. |
| Pot Life After Mixing(25°C) | Pot life: 1 hour 30 minutes (1 hour when poured onto the floor). Higher temperatures reduce pot life after mixing. |
| Thinner | Application is generally not recommended when ambient temperature exceeds 35°C (95° F). |
| Recoating interval | Do not add thinners to the coating. |
| | Ensure the coating is fully cured before proceeding to the next step. Typical recoat interval under standard conditions is 24 hours |

Mix Ratio

Mixing Ratio: Component A : Component B = 20 : 4.

Pot Life: 1 hour 30 minutes at 25°C (1 hour if poured onto the floor). Higher temperatures reduce pot life.

Application is generally not recommended when ambient temperatures exceed 35°C.

Thinner

No thinners may be added to the paint.

Film Thickness

| Surface Coating | Film Thickness |
|-----------------|----------------|
| | Minimum 0.6mm |

Drying time

| Substrate Surface | 20°C |
|-------------------|--------|
| Surface Dry | 8 h |
| Fully Cured | 7 days |

Ambient Temperature

15°C to 35°C. Avoid application when relative humidity exceeds 80%.

Substrate Temperature

Above the dew point by 3°C or more

Mixing and Dilution

Wanshield®62238 is a two-component product with a precise component ratio. Once the mixing time is determined, consistency must be maintained throughout the entire application process. Inconsistent mixing times per batch may result in surface color variations and differing textures.

1. During mixing, use a straight-edge trowel to scrape material adhering to the sides and bottom of the container. This step must be performed at least once to ensure complete final blending.
2. Only mix the entire contents of the factory packaging. Temperature affects both application time and product curing time.
3. Mixing equipment may cause variations in flowability; use the recommended mixing paddle.

No thinners may be added to the coating.

Ventilation

Ensure adequate ventilation throughout the work area for operator safety and proper product performance.

Packaging and Storage

Packaging

Two-component, 24 kg combination package.

Storage

Product storage must comply with national regulations. Storage and transportation conditions: Coatings should be stored in sealed containers at 5-30°C in a dry, cool, and well-ventilated environment, away from high temperatures and open flames. During transportation, materials should be stacked securely to ensure the cargo compartment remains dry, enclosed, and protected from moisture and freezing.

Shelf Life

When stored under specified conditions, the shelf life of the product in its original packaging is 12 months from the date of manufacture.

Safety Precautions

Warning

May cause eye and skin irritation. Vapors may cause respiratory irritation in sensitive individuals. May cause skin sensitization. Avoid breathing vapors. Avoid contact with eyes and skin. Use eye, ear, and skin protection, and wear an appropriate respirator to avoid potential respiratory irritation. After use, thoroughly wash skin with water. If discomfort occurs, consult a physician. Wash clothing before reuse. If breathing has stopped, perform artificial respiration, preferably mouth-to-mouth, and seek medical attention. Burns: Exothermic reactions may cause product to become excessively hot. Handle mixtures with caution. Wear gloves. First Aid: If product contacts eyes, immediately flush with water for at least 15 minutes. Remove contaminated clothing and shoes. Wash exposed skin with soap.

Before and during use, observe all safety labels on the packaging. Consult the Safety Data Sheet and comply with relevant national or local government safety regulations.

Statement

The information listed in this document is reliable. Each value provided is calculated as theoretical data based on the product formulation. Upon request, our company can disclose the internal standard measurement methods used to determine any of the above data. Since usage conditions are beyond the manufacturer's control, this information is provided without warranty. The product is intended for professional use only. For any inquiries, please contact our company.

Our Technical Support and Customer Service Center is available to provide consultation and application technical services regarding the product. We welcome your inquiries via mail or phone. National Customer Service Hotline: 400-059-1116 ext. 3.