

# PERFORMANCE POLYURETHANE MORTAR FLOORING SYSTEM





## Simon High-Performance Polyurethane Mortar Flooring System CPU

It is specially developed for harsh scenarios such as food processing, cold chain logistics, chemical anti-corrosion and high-end manufacturing, aiming to replace imported 4C system products and provide a cost-effective solution with performance comparable to imported alternatives and 15%-20% lower cost.

### System Technical Principles and Core Positioning

Simon High-Performance Polyurethane Mortar Flooring leverages the four-element synergistic technology of "matrix-crosslinking-coloring-reinforcement", forming a composite structure where "elastic matrix encases rigid aggregates" to significantly enhance compression and wear resistance. Breaking the performance limitations of conventional two/three-component products, it boasts core advantages: extreme temperature tolerance (-40°C to 120°C), superior chemical resistance (against 30% sulfuric acid and 40% sodium hydroxide), heavy-load durability (no marks from 15-ton forklift rolling), and food-grade safety with FDA certification.

### Product Composition

This four-component waterborne system comprises modified polyurethane castor oil emulsion (Part A), eco-friendly curing agent (Part B), special premixed powder (Part C) and durable color paste (Part D). Blended in accurate ratios, it creates a composite floor that combines the elasticity of organic polymers with the rigidity of inorganic materials. Boasting core strengths of extreme temperature difference tolerance, superior chemical resistance and heavy-load wear resistance, it fully meets food-grade safety standards and the rigorous requirements of industrial applications.

### All-Round All-Rounder

1. Food-grade safety & eco-friendly (FDA Certified)
2. Temperature tolerance: 120°C steam (high temp) & -40°C freezing (low temp)
3. Wear-resistant, slip-resistant, heavy-load & impact-resistant
4. Superior chemical corrosion resistance
5. Easy cleaning, mold-inhibiting & antibacterial
6. Long service life of up to 20 years



SIMON CPU PU MORTAR FLOORING SYSTEM

## Universal PU Mortar Self-Leveling CPU M100

**Application:** Central kitchens, dairy workshops, cold storage (0°C to -40°C), meat processing plants, new energy industry, pharmaceutical packaging workshops. Ideal for humid and steam-exposed environments.

**Coating thickness:** 4-6mm

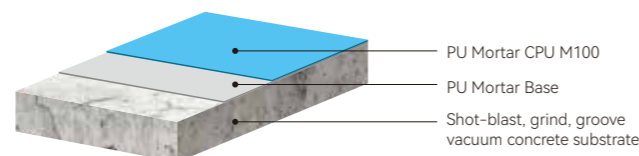
**Features:** 4C system, with -40°C freeze-thaw resistance and 120°C steam cleaning tolerance, meets FDA food safety standards, and eliminates the common issues of "embrittlement in low temperatures and softening in high temperatures" with traditional epoxy flooring.

### Technical Specifications:

Density	1950kg/m <sup>3</sup>
Compressive Strength (28d)	≥65MPa
Tensile Strength	≥10MPa
Flexural Strength	≥20MPa
Abrasion Resistance (750g/500r)	≤15mg
Temperature Resistance Range	-40°C to 120°C (No cracking after 40 freeze-thaw cycles)
Chemical Resistance	Withstands 15% acid/alkali & edible oil for 24h, no change/blistering
Adhesion (Pull-off Strength, MPa)	≥3.5 (substrate failure)
Slip Resistance Coefficient (Wet)	≥0.6 (Grade R10, compliant with anti-slip requirements for food workshops)
Curing Time (25°C)	Tack-free time ≤6h, hard dry time ≤24h, full curing in 7d

### Surface finish:

Single-layer integral seamless, smooth matte.



SIMON CPU PU MORTAR FLOORING SYSTEM

## Thin PU Mortar Self-Leveling CPU M200

**Application:** Electronics, new energy, clean rooms, tobacco, pharmaceutical packaging, laboratories, offices, meeting rooms and other areas requiring wear-resistant, clean and light-loading floors.

**Coating thickness:** 1-1.5mm

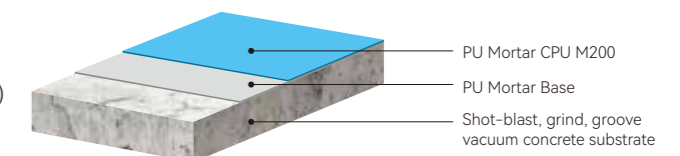
**Features:** 4C system, resistant to high/low temperatures and freeze-thaw cycles, wear-resistant and capable of medium load bearing; bio-based material with eco-friendly, low-carbon and low VOC properties, compliant with FDA food and pharmaceutical standards.

### Technical Specifications:

Density	1950kg/m <sup>3</sup>
Compressive Strength (28d)	≥65MPa
Tensile Strength	≥12MPa
Flexural Strength	≥23MPa
Abrasion Resistance (750g/500r)	≤15mg
Temperature Resistance Range	-40°C to 130°C
Chemical Resistance	30% acid/alkali & 40% NaOH resistant, 72h intact
Adhesion (Pull-off Strength, MPa)	≥3.5 (substrate failure)
Slip Resistance Coefficient (Wet)	≥0.6 (R10)
Curing Time (25°C)	Tack-free ≤6h, Hard dry ≤28h, Full cure 7d

### Surface finish:

Seamless single-layer, smooth matte;  
Custom colors (China Building Color Card, Pantone)



SIMON CPU PU MORTAR FLOORING SYSTEM

## Wear-Resistant PU Mortar Self-Leveling CPU M300

**Application:** Food, beverage, brewery, lab, clean workshop, canteen, tobacco, packaging shop, new energy, pharmaceutical packaging workshop (wear-resistant & clean areas).

**Coating thickness:** 1.5-2.5mm

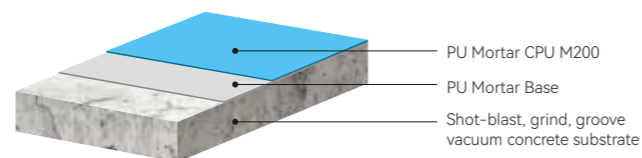
**Features:** 4C system, temp & freeze-thaw resistant, wear-resistant & medium load-bearing; eco-friendly low-carbon low-VOC bio-based material, FDA food hygiene compliant.

**Technical Specifications:**

Density	1980kg/m <sup>3</sup>
Compressive Strength (28d)	≥65MPa
Tensile Strength	≥12MPa
Flexural Strength	≥23MPa
Abrasion Resistance (750g/500r)	≤13mg
Temperature Resistance Range	-40°C to 130°C (No softening at 130°C continuously)
Chemical Resistance	Resistant to 30% acid/alkali & 40% sodium hydroxide for 72h, no abnormality
Adhesion (Pull-off Strength, MPa)	≥3.8 (Substrate failure)
Slip Resistance Coefficient (Wet)	≥0.6 (Grade R10)
Curing Time (25°C)	Tack-free time ≤7h, hard dry time ≤28h, fully cured in 7d

**Surface finish:**

Single-layer, integral and seamless, smooth and matte.



SIMON CPU PU MORTAR FLOORING SYSTEM

## Heavy-Duty Anti-Slip PU Self-Leveling CPU M400

**Application:** Meat/slaughtering, seafood/fish processing, dairy, cold storage(0~-40°C), freezing/refrigeration equipment, pharmaceutical workshops; heavy chemical plants & all high-temp high-humidity environments.

**Coating thickness:** 6-12mm

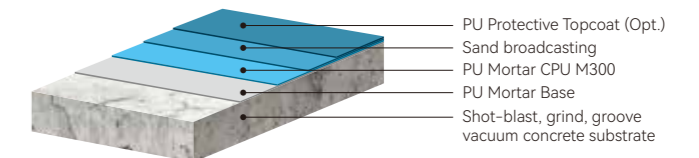
**Features:** 4C system, 70-120°C heat-resistant; 12mm for 150°C steam cleaning. Easy-clean, antibacterial, mildew-proof, FDA compliant. Heavy load/impact resistant, long service life, easy maintenance. 10% carborundum optional for enhanced strength & slip resistance.

**Technical Specifications:**

Density	2050kg/m <sup>3</sup>
Compressive Strength (28d)	≥70MPa
Tensile Strength	≥15MPa
Flexural Strength	≥25MPa
Abrasion Resistance (750g/500r)	≤15mg
Temperature Resistance Range	-40°C to 130°C (No peeling under thermal shock 120°C→-40°C)
Chemical Resistance	Resistant to 30% acid/alkali & 40% sodium hydroxide for 72h, no abnormality
Adhesion (Pull-off Strength, MPa)	≥3.0 (Substrate failure)
Slip Resistance Coefficient (Wet)	≥0.7 (Grade R11, suitable for AGV aisles)
Curing Time (25°C)	Tack-free time ≤7h, hard dry time ≤30h, fully cured in 7d

**Surface finish:**

Single-layer, integral and seamless, smooth and matte.



## Simon Solvent-Free PU Self-Leveling SPU

Two-component solvent-free system (Modified Polyurethane Resin Part A + Aliphatic Curing Agent Part B) with ultra-fine fillers added. A seamless, dense coating is formed after self-leveling application.

### Core Advantages

Light/medium/heavy load bearing for general industrial & commercial scenarios: Solvent-free, high leveling property and medium-heavy load adaptability, ideal for commercial spaces, light industry and clean workshops (e.g. warehouse aisles, pharmaceutical workshops, garages).

### Hygiene-sensitive & high foot-traffic scenarios:

Choose SPU F200 (e.g. hospitals, kindergartens, nursing homes).

### Environmental Indicators

**VOC content:** ≤50g/L

**Certifications:** FDA 21 CFR 175.300 (food contact), ISO 14001

**Hazardous substances:** Heavy metals (Pb/Hg/Cd) ≤5ppm, formaldehyde & benzene series free



SIMON SPU SOLVENT-FREE PU SELF-LEVELING

## Universal Solvent-Free PU Self-Leveling SPU F100

**Application:** Manufacturing clean rooms, labs, chemical & pharmaceutical workshops, warehouses, aisles, hospital wards, corridors, garages, etc.

**Coating thickness:** 1.5-2.5mm

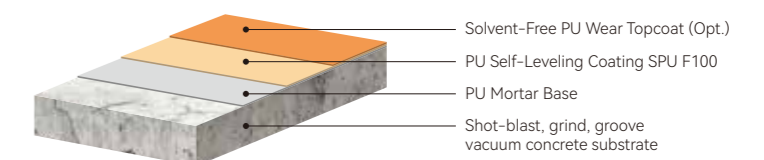
**Features:** Seamless integral floor, sleek & elegant; easy cleaning, low maintenance, elastic for fine crack bridging, wear-resistant.

### Technical Specifications:

Density	1.06-1.10kg/cm <sup>3</sup>
Compressive Strength (28d)	≥65MPa
Tensile Strength	≥18MPa
Flexural Strength	≤20mg
Abrasion Resistance (750g/500r)	-30°C to 80°C
Temperature Resistance Range	20% sulfuric acid, 20% sodium hydroxide, engine oil & alcohol resistant, 48h immersion intact (no discoloration/blistering, weight loss ≤0.5%)
Chemical Resistance	≥3.5 MPa (Substrate failure)
Adhesion (Pull-off Strength, MPa)	≥60-80
Slip Resistance Coefficient (Wet)	Coating is dense and non-porous, dustproof grade ≥6
Curing Time (25°C)	Tack-free time ≤ 5h, hard dry time ≤ 30h, full curing time 10d

### Surface finish:

Single-layer, integral and seamless, smooth and matte.





SIMON SPU SOLVENT-FREE PU SELF-LEVELING

## Hygienic Solvent-Free PU Self-Leveling SPU F200

**Application:** High foot-traffic & hygiene-sensitive sites. Hospitals: Antibacterial, easy-clean, flexible anti-fall, Schools/Kindergartens: Eco-friendly, odorless, slip-resistant, soundproof, Nursing homes: Elastic cushioning, seamless.

**Coating thickness:** 1.5-2.5mm

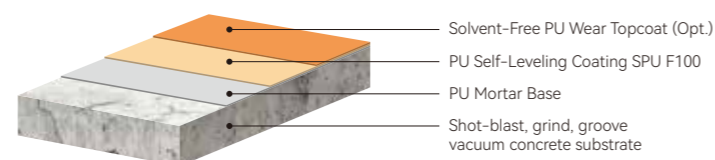
**Features:** Safety: FDA 21 CFR 175.300 (food contact), EU 10/2011; flexible, sound-dampening, Antibacterial & easy-clean: Antibacterial rate ≥99% (E. coli, S. aureus, C. albicans), stain-resistant.

### Technical Specifications:

Density	1.06-1.10kg/cm <sup>3</sup>
Compressive Strength (28d)	≥60MPa
Tensile Strength	≥18MPa
Flexural Strength	≤20mg
Abrasion Resistance (750g/500r)	-30°C to 80°C
Temperature Resistance Range	20% sulfuric acid, 20% sodium hydroxide, engine oil & alcohol resistant, 48h immersion intact (no discoloration/blistering, weight loss ≤0.5%)
Chemical Resistance	≥3.5 MPa (Substrate failure)
Adhesion (Pull-off Strength, MPa)	≥60-80
Slip Resistance Coefficient (Wet)	Coating is dense and non-porous, dustproof grade ≥6
Curing Time (25°C)	Tack-free time ≤ 5h, hard dry time ≤ 30h, full curing time 10d

### Surface finish:

Single-layer, integral and seamless, smooth and matte.



## Simon WEP Epoxy Self-Leveling System

### Core Advantages

Eco-upgraded product with solvent-free performance, meeting environmental requirements of food, pharmaceutical, electronics manufacturing and logistics warehousing.

### Product Composition

Formulated with solvent-free epoxy resin (Part A) and curing agent (Part B), added with functional aggregates like quartz sand and conductive powder. A seamless, dense and eco-friendly floor coating is formed via self-leveling application. Core advantages: low volatility, high strength, multi-scenario applicability, complying with both food-grade safety and industrial standards.

### Eco-safe & high cost-efficiency

1. VOC: ≤50g/L
2. Odor grade: ≤1 (No irritation in enclosed construction)
3. Certifications: CFIA, USDA food contact approved; meets LEED green building specs
4. Wide use, high cost-performance.





SIMON WEP EPOXY SELF-LEVELING SYSTEM

## Universal Epoxy Self-Leveling WEP-G100

**Application:** Commercial complexes, office corridors, general industrial workshops, classrooms, hospital walkways, underground garages (non-heavy-duty), scenarios needing basic performance & eco-friendliness.

**Coating thickness:** 2-3mm

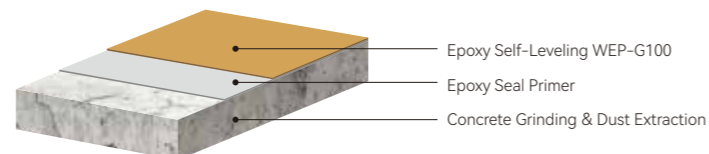
**Features:** Seamless, flat, easy-clean matte/high-gloss coating; fits multi-scenario substrates, cost-effective flooring for commercial & general industrial use.

### Technical Specifications:

Compressive Strength (28d)	≥60MPa
Tensile Strength	≥12MPa
Abrasion Resistance (750g/500r)	≤35mg
Levelling property (mm)	≥200
Chemical Resistance	Resistant to 10% acid/alkali, 120# gasoline; 48h immersion intact
Adhesion (Pull-off Strength, MPa)	≥3.0 (Substrate failure)
Curing Time (25°C)	Tack-free ≤4h, Hard dry ≤24h, Full cure 7d

### Surface finish:

Seamless, flat, easy-clean matte/high-gloss coating, compatible with multi-scenario substrates.



Epoxy Self-Leveling WEP-G100  
Epoxy Seal Primer  
Concrete Grinding & Dust Extraction



SIMON WEP EPOXY SELF-LEVELING SYSTEM

## Epoxy Colored Sand Self-Leveling WEP-C200

**Application:** Malls, exhibition halls, hotel lobbies, high-end offices, brand stores, hospital halls, school libraries, high-end residential floors (high decor & wear resistance required).

**Coating thickness:** 2-3mm

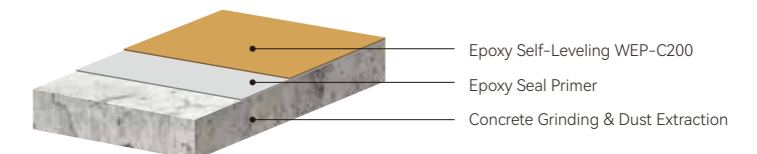
**Features:** Epoxy weather resistance + colored sand decor; customizable solid color/stone-like texture. Dense, wear/scratch-resistant, aesthetic & functional, for high decor & durability demands.

### Technical Specifications:

Compressive Strength (28d)	≥45MPa
Tensile Strength	≥12MPa
Abrasion Resistance (750g/500r)	≤35mg
Levelling property (mm)	≥200
Chemical Resistance	Resistant to 20% acid/alkali and engine oil, 60h immersion no abnormality
Adhesion (Pull-off Strength, MPa)	≥3.0 (Substrate failure)
Curing Time (25°C)	Tack-free ≤6h, Hard dry ≤36h, Full cure 10d

### Surface finish:

Seamless, flat, easy-clean coating;  
Gloss: matte ≤30, semi-gloss 40-60;  
compatible with multi-scenario substrates.



Epoxy Self-Leveling WEP-C200  
Epoxy Seal Primer  
Concrete Grinding & Dust Extraction



SIMON WEP EPOXY SELF-LEVELING SYSTEM

## Epoxy Anti-static Self-Leveling WEP-ES300

**Application:** Electronic clean rooms, semiconductor plants, data centers, precision instrument workshops, chemical explosion-proof zones, operating rooms (strict electrostatic protection required).

**Coating thickness:** 2-3mm

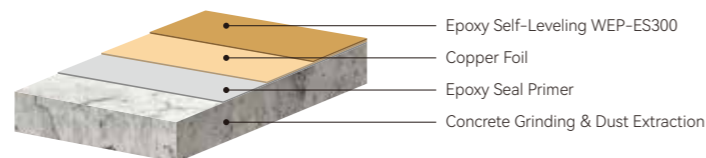
**Features:** Fast static discharge, prevents damage to electronics/flammable environments; eco-friendly, odorless, ideal for precision electronics & explosion-proof use.

### Technical Specifications:

Compressive Strength (28d)	≥50MPa
Tensile Strength	≥10MPa
Abrasion Resistance (750g/500r)	≤35mg
Levelling property (mm)	≥180
Chemical Resistance	Resistant to 20% acid/alkali & engine oil, 60h immersion no abnormality
Adhesion (Pull-off Strength, MPa)	≥3.2 MPa (Substrate failure)
Curing Time (25°C)	Tack-free ≤6h, Hard dry ≤36h, Full cure 10d
Surface Resistance (Ω)	10 <sup>6</sup> -10 <sup>9</sup> (Static Dissipative Type)
System Grounding Resistance (Ω)	≤10 Ω

### Surface finish:

Seamless, flat, easy-clean coating.  
Electrostatic dissipation achieved via "conductive coating + copper foil network".  
Surface resistance stabilizes at 10<sup>6</sup>-10<sup>9</sup> Ω.



SIMON WEP EPOXY SELF-LEVELING SYSTEM

## Epoxy Terrazzo WEP-T400

**Application:** Airports, high-speed rail/subway stations (high foot traffic); schools, malls, art galleries, performance venues, offices & luxury residences.

**Coating thickness:** 4-8mm

**Features:** High-end upgrade for traditional terrazzo/epoxy floors; eco-friendly, durable, aesthetic, fit for high-end commercial, cultural tourism real estate & premium offices (strict texture & performance demands).

### Technical Specifications:

Density	1850-1950kg/m <sup>3</sup>
Compressive Strength (28d)	≥60MPa
Tensile Strength	≥12MPa
Flexural Strength	≥20MPa
Abrasion Resistance (750g/500r)	≤18mg
Temperature Resistance Range	-20°C to 60°C
Chemical Resistance	Resistant to 10% acid/alkali and edible oil, 24h immersion no abnormality
Adhesion (Pull-off Strength, MPa)	≥3.0(Substrate failure)
Slip Resistance Coefficient (Wet)	≥0.6 (R10 Grade)
Curing Time (25°C)	Tack-free ≤7h, Hard dry ≤30h, Full cure 7d

### Surface finish:

Monolithic seamless single layer,  
smooth gloss 30-45, strong artistic sense with multiple aggregates available, customizable.



## Simon Water-Based Polyurethane Finish WPU-810

### Product Features

1. Core Advantages: Modified PU resin system, wear-resistant, color-stable, high hardness (4H pencil). Taber Abrasion (500g/5000 cycles): weight loss  $\leq 10\text{mg}$ ; uniform color, no floating/blooming, excellent hiding power.
2. Color Fastness: Good light fastness, rubbing fastness  $\geq$  Grade 4 (dry/wet); outdoor  $\Delta E \leq 3.0$  (1000h UV).
3. Other Features: Adhesion  $\leq$  Grade 1 (cross-cut), scrub resistance  $\geq 10,000$  cycles; water resistance (48h immersion): no wrinkle, peel or discoloration.
4. Eco-friendly: Water-based, low-VOC color paste, meets GB 18581-2020, odorless.

### Surface Finish

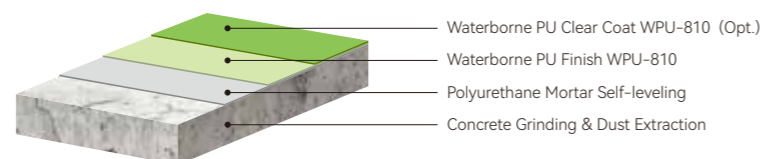
Monolithic seamless, semi-gloss & matte optional.

### Applicable Scenarios

For indoor-outdoor colored decoration of wood (floors, furniture, doors, gratings), metal (with anti-rust primer) & plastic (ABS, PVC). Applied in residence, commercial space, public facilities (park benches, community corridors), custom colors available (Pantone/National Standard Color Chart matchable).

### Matching Products:

Topcoat with WPU-810 PU wear-resistant clear coat on this finish paint for better wear and stain resistance.



## Simon Water-Based PU Wear-resistant Varnish WPU-800

### Product Features

1. Core Advantages: Modified PU resin system, high scratch resistance, excellent wear resistance & good toughness, all properties over 30% better than standard waterborne clear coats.
2. Chemical Resistance: Resists acids, alkalis & organic solvents; no obvious coating change after 24h immersion in 10% HCl, 10%  $\text{H}_2\text{SO}_4$ , 10% NaOH & 50% ethanol.
3. Other Properties: Transparent, non-yellowing; adhesion  $\leq$  Grade 1 (cross-cut test); scrub resistance  $\geq 10,000$  cycles; water resistance (48h immersion): no wrinkling or peeling.
4. Eco-friendly: Water-based, VOC  $\leq 50\text{g/L}$ , compliant with GB 18581-2020, no pungent odor.

### Surface Finish

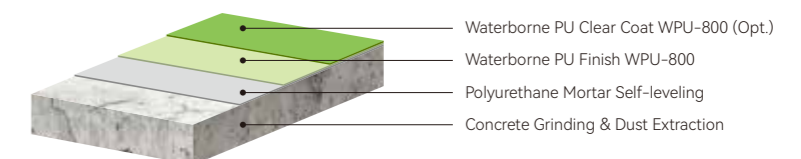
Monolithic seamless, semi-gloss & matte optional.

### Application Scenarios

For protection of cement self-leveling, epoxy & PU flooring; decoration & protection of concrete walls/floors, cement-based surfaces, indoor-outdoor wood substrates (flooring, furniture, doors, plank roads), metal surfaces (with anti-rust primer) & plastic substrates (ABS, PVC).

### Matching Products:

Apply PU Abrasion-resistant Clear Coat WPU-800 over the finish paint for better stain & wear resistance.



## Partial Application Scenarios

 <b>Food Process</b>	Meat Slaughtering & Processing, Seafood & Fish Processing, Agricultural Product Processing, Frozen Food Processing, Bakery Food Processing, Confectionery & Snack Foods, Condiment Processing, Pickled Product Processing, Dairy Product Processing
 <b>Catering Industry</b>	Prepared Dishes Processing, Central Kitchen, Large & Medium Canteens, Coffee & Milk Tea Chains, Fast Food Chains
 <b>High-end Manufacturing</b>	New Energy, Military Industry, Automotive Manufacturing, Biological Products & Pharmaceuticals, Beauty & Cosmetics, Electronics & Semiconductors, Petroleum & Chemical Industry, Hardware Products, Printing Industry, Precision Instrument Manufacturing
 <b>Research, Healthcare, Culture</b>	Laboratories, Test Laboratories, Hospitals & Health Institutions, Kindergartens, Nursing Homes, Libraries, Exhibition Halls, Art Exhibition Halls, Commercial Premises
 <b>Warehousing ransportation</b>	Warehouse Materials, Express Delivery, Aviation, High-speed Rail & Subway

## Color Chart (Color varies in printing, subject to physical sample)

			
Beige Pantone 12-0720 TCX	Maize Yellow Pantone 13-0940 TCX	Oxide Red Pantone 18-1545 TCX	Grass Green Pantone 16-0640 TCX
			
Slate Grey Pantone 17-5104 TCX	Dusty Grey Pantone 17-4005 TCX	Traffic Grey Pantone 17-4103 TCX	Sky Blue Pantone 15-4025 TCX

Product Series	Name & Model	Applications	Coating Thickness
Polyurethane Mortar Series	Universal PU Mortar Self-leveling CPU M100	Central Kitchen, Dairy Workshop, Cold Storage (-40°C), Meat Processing Workshop, New Energy, Pharmaceutical Packaging Workshop	4-6mm
	Thin PU Mortar Self-leveling CPU M100	Electronics Cleanroom, New Energy Workshop, Test Laboratory, Office Space, Conference Room (Light Load + High Cleanliness)	1-1.5mm
	Wear-Resistant PU Mortar Self-leveling CPU M100	Food/Beverage/Beer Workshop, Laboratory, Clean Workshop, Canteen, Tobacco/Pharmaceutical Packaging Workshop (High Wear Resistance)	1.5-2.5mm
	Heavy-Duty Anti-Slip PU Mortar Self-leveling CPU M400	Slaughterhouse Workshop, Seafood Processing, Heavy-Duty Chemical Plant, Cold Storage, Pharma Workshop (High Temp & Humidity + Heavy Load)	6-12mm
Solvent-free Polyurethane Self-leveling Series	Universal Solvent-free Polyurethane Self-leveling SPU F100	Manufacturing Clean Workshop, Laboratory, Pharmaceutical Workshop, Warehouse Passage, Hospital Corridor, Garage (Medium-Heavy Load)	1.5-2.5mm
	Hygienic Solvent-free Polyurethane Self-leveling SPU F100	Hospital Ward/ICU, School/Kindergarten, Elderly Nursing Home (Antibacterial + Elastic)	1.5-2.5mm
Epoxy Self-leveling Series	Universal Epoxy Self-leveling WEP-G100	Commercial Complex, Office Building Corridor, General Industrial Workshop, School Classroom, Hospital Passage, Garage (Non-Heavy Load)	2-3mm
	Epoxy Colored Sand Self-leveling WEP-C200	Shopping Mall Exhibition Hall, Hotel Lobby, High-end Office Building, Brand Exclusive Store, High-end Residence (High Decorativeness + Wear Resistance)	2-3mm
	Epoxy Anti-static Self-leveling WEP-ES300	Electronics Clean Workshop, Semiconductor Factory, Data Center, Chemical Explosion-proof Area, Operating Room (Anti-static)	2-3mm
	Epoxy Terrazzo WEP-T400	Airport, High-speed Railway Station, Metro, Shopping Mall, Art Exhibition Hall, Office Space, High-end Residence (High Decorativeness)	4-8mm
Waterborne Polyurethane Coating Series	Waterborne Polyurethane Wear-resistant Clear Coat WPU-800	Floor Protection Layer (Cement/Epoxy/Polyurethane), Protection for Wood/Metal/Plastic Substrates (Transparent & Wear-resistant)	Single-coat Thin Application (Total Thickness ≤ 0.5mm)
	Waterborne Polyurethane Colored Coat WPU-810	Residential Decoration, Commercial Spaces, Public Facilities (Park Benches), Suitable for Wood/Metal/Plastic Substrates (Coloring)	Single-coat Thin Application (Total Thickness ≤ 0.5mm)