TECHNICAL DATA SHEET

Product Name: Oil-based polyurethane ultra-wear-resistant floor paint
Brand: MELIDA
Standard Compliance: GB/T 22374-2018, GB 18583-2008, JC/T 1015-2006
Shelf Life: 12 Months (Sealed Original Packaging)
Package Specification: 10kg
Storage Condition: Store in a cool, dry and well-ventilated warehouse. Keep away from fire, heat sources and oxidants. Keep containers tightly sealed at 5–30℃. Avoid direct sunlight and rain. Store separately from flammable and explosive materials.

1. PRODUCT DESCRIPTION

This is a 3-component solvent-based aliphatic polyurethane ultra-wear-resistant floor paint, composed of Part A (polyurethane resin), Part B (curing agent), Part C (high-hardness wear-resistant aggregate/filler). Formulated with weather-resistant aliphatic PU resin and special wear-resistant powder, it cures into a tough film.

High hardness , excellent abrasion resistance , heavy-load & impact resistant. Aliphatic formula, non-yellowing, excellent outdoor weatherability, no chalking or cracking under long-term UV exposure. Resistant to acids, alkalis, oils and solvents; dustproof, easy to clean; matte/semi-gloss finish with good anti-slip performance. Strong adhesion to concrete and epoxy primers; seamless surface

Factories, warehouses, parking lots, heavy-duty workshops, logistics corridors, outdoor floors, aircraft hangars, high-traffic public areas; ideal for outdoor and high-wear applications.

2. TYPICAL TECHNICAL DATA

Test Item	Standard Index	Test Standard
Product State	Two Component (A:Viscous liquid, B: Curing Agent,C:Dry fine granular)	Visual Inspection
Mixing Ratio (A:B:C)	Fixed Proportion Matching, Strict Construction According to	Product Instruction

	Ratio	
Appearance & Color	Part A: Colored viscous liquid; Part B: Pale yellow clear liquid; Part C: Off-white fine aggregate. Cured film is flat, matte/semi-gloss. Various colors available, custom acceptable.	Visual Inspection
Solid Content	≥85%	GB/T 1725
Surface Dry Time (25℃, 50%RH)	≤4h	GB/T 1728
Hard Dry Time (25℃, 50%RH)	≤24h	GB/T 1728
Full Curing Time	7 Days	Standard Lab Condition
Adhesion Strength	≥3MPa, Firm Bonding, No Peeling	GB/T 5210
Compressive Strength	≥80MPa	GB/T 22374
Bending Strength	≥10MPa	GB/T 22374
Wear Resistance (750g/500r)	≤0.02g	GB/T 22374
Impact Resistance	No crack/peeling (1000g/100cm).	GB/T 1732
Surface Hardness (Shore D)	4H–5H (pencil).	GB/T 2411
Water Resistance (168h)	No Blistering, No Whitening, No Deterioration	GB/T 1733
Oil & Alkali Resistance	Excellent, Resist Engine	GB/T 9265

	Oil, Diesel Oil, Alkali Corrosion	
Anti-Slip Property	Dry/wet friction coefficient ⩾0.6; slip resistance R9–R11.	Industry Standard
Color Retention & Weather Resistance	non-yellowing ,long-term color stable.	Industry Standard
VOC Content	Compliant with GB 18583-2008 Standard	GB 18583-2008
Formaldehyde & Heavy Metals	Not Detected	GB 18583-2008

3. CONSTRUCTION PARAMETERS

- **Application Method**: Troweling + Rolling
- **Applicable Substrate**: Dry and solid cement concrete floor, cement mortar floor
- **Construction Temperature**: 15℃-30℃, Relative Humidity ≤80%
- **Forbidden Construction**: Rainy, high humidity, freezing, dusty, wet & loose base
- **Theoretical Coverage**: 0.10–0.15 kg/㎡
- **Coating Interval**: Recoating interval: Min. 6–8 hours, Max. 24 hours. Polish the surface if exceeding 24 hours before re-coating.
- **Mixing Rule**: Mix component A : B :C evenly in strict proportion, stir fully, use up within pot life
- **Usage Scenario**:Heavy-duty workshops, warehouses, logistics aisles, parking lots, outdoor floors and high-traffic public areas.

4. STANDARD CONSTRUCTION PROCEDURE

1. Detailed Surface Treatment
Grind the floor thoroughly to remove laitance, oil and dust. Repair pits, cracks and hollow areas to ensure a solid, flat, dry and dust-free substrate.

2. Primer Coating
Roll on special penetrating primer to strengthen the base, seal pores and improve adhesion. Proceed only after full drying.

3. Intermediate Coating (Optional)
Apply polyurethane mortar or putty to level uneven areas. Grind and vacuum completely after drying for a smooth base.

4. Material Mixing
Mix A/B/C components strictly by weight ratio. Stir evenly and use up within pot life to avoid gelling.

5. Topcoat Application
Apply by troweling + professional roller finishing to form uniform, smooth, pinhole-free and even film.

6. Curing
Keep the area closed after construction. Light foot traffic after 24 hours, full curing after 7 days. Avoid water, heavy load and contamination during curing.

5. STORAGE & TRANSPORTATION

Storage: Keep in cool, dry and ventilated warehouse at 5–30℃. Seal tightly, keep away from fire, heat and oxidants. Store three components separately. Shelf life: 12 months unopened. Keep curing agent away from water, acid and alkali.

Transport: Transport as flammable liquid. Avoid direct sunlight, impact and inversion. Keep away from open flame.

6. SAFETY & ENVIRONMENTAL PRECAUTIONS

1. Ensure good ventilation, no open flame or smoking, and equip with fire fighting equipment.

2. Wear masks, gloves and goggles to avoid direct contact with skin and eyes.

3. Rinse immediately with clean water if contacted, seek medical help if discomfort occurs.

4. Collect waste liquid and containers for recycling, do not dump randomly.

5. Formaldehyde-free, heavy metals compliant, low VOC, eco-friendly

7. DISCLAIMER

All data and parameters listed in this TDS are tested under standard laboratory conditions, only for product use and construction guidance. Actual wear resistance,

compression resistance, decorative effect and service life are affected by base condition, construction process, mixing ratio, temperature, humidity and later maintenance. We shall not be liable for floor defects, peeling, cracking, wear and related quality losses caused by unqualified base treatment, wrong mixing ratio, wet base construction, non-standard construction, improper storage and later violent damage.