

# Product Technical Manual

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TDS Number:

Product Name: Wanhua Anti-impact Wear-resistant Epoxy Mortar

Version: V 3.0

## Product Introduction

Wanhua Anti-impact Wear-resistant Epoxy Mortar is a novel polymer alloy material composed of island-type modified epoxy resin, environmentally friendly reactive diluent, hydrophilic aliphatic amine composite curing agent, coarse-grained wear-resistant inorganic fillers (quartz sand, silicon carbide, cast stone powder, etc.), and UV-resistant additives. It boasts excellent mechanical properties, outstanding anti-abrasion resistance, superior weather resistance, low sensitivity to moisture, and good freeze-thaw resistance. It is recommended for anti-abrasion protection of concrete surfaces, defect repair of honeycomb and pitted surfaces, and structural reinforcement of concrete.

## Product Features Physical and Chemical Properties

1. Superior Mechanical Properties and Bonding Strength: Exceptional adhesion and durability.
2. Excellent Anti-abrasion Performance: Adaptability to harsh environments.
3. Advanced Aging Resistance: Long-term stability and reliability.
4. High Solid Content, Low Odor: Environmentally friendly formulation.
5. Convenient Packaging and Application: Simplified mixing and construction process.

## Product Applications

- Anti-abrasion Protection: For flood discharge structures in hydraulic concrete projects.
- Rapid Repair: For defect treatment (e.g., honeycomb, pitting) in tunnels, bridges, and other concrete structures.

## Physical and Chemical Properties

Item	Index	Unit	Testing Method	Remarks
Mortar Density	$1.9 \pm 0.11.9 \sqrt{\text{pm}}$ $0.11.9 \pm 0.1$	$\text{g/cm}^3$	[Not Provided]	Typical value
Compressive Strength	$\geq 90$	MPa	[Not Provided]	
Flexural Strength	$\geq 25$	MPa	[Not Provided]	
Tensile Strength	$\geq 10$	MPa	[Not Provided]	
Bonding Strength	$\geq 4.0$ (Substrate failure)	MPa	[Not Provided]	
Linear Thermal Expansion Coefficient	[Not Provided]	$1/^\circ\text{C}$ ( $\times 10^{-6}$ )	[Not Provided]	
Anti-abrasion Strength (Underwater Steel Ball Method)	[Not Provided]	$\text{h}/(\text{kg}/\text{m}^3)$	[Not Provided]	72-hour test result
Anti-sand Flow Erosion Resistance (Circular Ring Method)	[Not Provided]	$\text{h}/(\text{g}/\text{cm}^3)$	[Not Provided]	Equivalent to 40 m/s flow

Note: Values listed are typical test results and may vary slightly with environmental conditions. Legal binding is not claimed for these data.

## Usage Precautions

### 1. Surface Preparation:

- Remove dust, debris, and loose particles from the concrete surface. Expose fresh concrete (substrate strength  $\geq 25$  MPa). Clean with pressurized water and air-dry naturally.

### 2. Trial Mixing:

- For large-scale projects, conduct trial mixing based on ambient temperature and repair area to determine optimal batch size.

### 3. Material Preparation:

- Base Solution (A:B = 4:1 by weight): Mix A and B components thoroughly. Single batch should not exceed 500 g.
- Epoxy Mortar (A:B:C = 3.75:0.75:25.5 by weight):

#### 1. Blend B into A until uniform.

2. Rapidly mix with C component.

4. Construction:

- Apply base solution to the substrate and allow  $\geq 30$  minutes for penetration before applying mortar.

- Place mixed mortar into defects, compact, and level the surface.

5. Curing:

- Avoid disturbance during initial curing. Dry-cure after solidification.

6. Additional Notes:

- Keep aggregates dry to prevent moisture absorption.
- Optimal temperature range: 15 - 25 ° C. Consult manufacturer for extreme temperatures.

- Clean tools promptly; users should wear protective gear.

**Important: Prior to formal construction, conduct trials under identical conditions to verify reliability. Failure to follow instructions releases the buyer from liability.**

### Packing Details

- A Component: 3.75 kg pail
- B Component: 0.75 kg pail
- C Component: 25.5 kg pail (aggregate)

### Storage (Usage) Precautions

- Store in cool, dry conditions.

### Expiration Date

Minimum 24 months under dry, cool, sealed conditions.

### Safety Precautions

- Consultation services provided; supervision responsibility waived.
- Emergency Measures:
- Skin contact: Wash immediately.
- Eye contact: Rinse with water and seek medical attention.

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- Ingestion: Seek immediate medical help.

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**For more information, please refer to the Safety Data Sheet (SDS) of our products or contact our Customer Service Center.**

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The indicators and data provided in this document are based on our current level of technical knowledge and practical experience, and are for reference only. Specific guaranteed indicators are subject to the quality assurance certificate or supply contract. The user is responsible for testing the products purchased from our company to verify their suitability for their intended processes and applications, and to achieve the desired objectives. Further application and processing of our products are beyond our control. Therefore, our liability for the products provided is limited to the portion delivered by us and used by you. We do not assume responsibility for indirect losses incurred during the production process using our products as raw materials. Our technical support and customer service center are available to provide consultation and technical services related to our products. We welcome your inquiries and communication via mail or phone.

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