



1 · Product Overview

Qiandao QD-003 is a premium polymer-modified waterproofing mortar engineered to deliver exceptional moisture protection and long-lasting durability in wet and humid environments. This advanced formulation combines specialty cements, refined aggregates, and proprietary polymer additives to create a dense, impermeable barrier that effectively resists water penetration while maintaining excellent adhesion to various substrates.

With excellent water retention ($\geq 88.0\%$), optimal setting time (3–12 hours), and low consistency loss ($\leq 30\%$ at 2 hours), QD-003 ensures reliable application performance and consistent quality. Its enhanced waterproofing capabilities make it an ideal solution for protecting concrete and masonry structures from moisture-related damage, including efflorescence, freeze-thaw deterioration, and corrosion of embedded reinforcement.

2 · Key Features & Benefits

- ① Superior waterproofing performance — dense impermeable barrier

② Excellent water retention ($\geq 88.0\%$) — optimal curing conditions

③ Optimal setting time (3–12 hours) — sufficient working time

④ Low consistency loss ($\leq 30\%$ at 2h) — maintained workability

⑤ Exceptional adhesion — polymer-modified formulation

⑥ Enhanced durability — resistance to weathering, chemical attack, and freeze-thaw cycles

3 · Executive Standard

GB/T 25181-2019 — *Ready-mixed Mortar* (China National Standard)

4 · Technical Specifications

Test Items	Condition / Age	Performance Indicator (QD-003)
Water Retention (%)	—	≥ 88.0
Setting Time (hours)	—	3 – 12
2h Consistency Loss Rate (%)	—	≤ 30

Test Items	Condition / Age	Performance Indicator (QD-003)
Compressive Strength (MPa)	28d	≥ 15.0
Flexural Strength (MPa)	28d	≥ 6.0
14d Tensile Bond Strength (MPa)	—	≥ 0.20
28d Shrinkage Rate (%)	—	≤ 0.15
Water Permeability Pressure (MPa)	28d	≥ 0.6
Chloride Ion Content (%)	—	≤ 0.03
Bleeding Rate (%)	—	0
Packaging	—	25 kg bag

* Performance indicators based on GB/T 25181-2019 standard testing conditions.

5 · Applications

Qiandao QD-003 is a versatile waterproofing solution suitable for a wide range of moisture-sensitive applications, including but not limited to:

- Bathrooms, showers, and other wet areas
- Basements, cellars, and underground structures
- Foundations and retaining walls
- Water tanks, reservoirs, and pools
- Balconies, terraces, and rooftops
- Masonry walls and facades requiring moisture protection
- Industrial and commercial facilities in humid environments

6 · Usage Instructions

1 Substrate Preparation

The substrate must be clean, sound, and free of dust, oil, grease, laitance, and other contaminants. Pre-wet the substrate surface without leaving standing water. For optimal results in challenging conditions, consult our technical team for specific guidance.

2 Mixing

QD-003 should be mixed with clean water using a mechanical mixer or drill with a paddle attachment until a homogeneous, lump-free consistency is achieved. Always follow the specified water-to-powder ratio provided in the technical data sheet to ensure optimal performance and waterproofing effectiveness.

3 Application

Apply the mortar evenly to the prepared substrate using a trowel or appropriate application tool. For multi-coat applications, allow each coat to set before applying the next. The mortar should be used within the

working time window to prevent premature stiffening.

4 Curing

Protect the applied mortar from rapid drying, direct sunlight, and extreme weather conditions. Maintain moist curing conditions for at least 3 days to ensure complete hydration and optimal performance development.

7 · Packaging & Storage

- **Packaging:** 25 kg moisture-proof composite bags.
- **Storage:** Store in a dry, well-ventilated area. Keep off the ground on pallets and cover with plastic sheeting to protect from direct sunlight and moisture.
- **Shelf Life:** 6 months. Products exceeding this period must be re-tested and verified compliant before use.

8 · Frequently Asked Questions

1. What is the recommended mixing procedure for QD-003?

QD-003 should be mixed with clean water using a mechanical mixer or drill with a paddle attachment until a homogeneous, lump-free consistency is achieved. Always follow the specified water-to-powder ratio provided in the technical data sheet to ensure optimal performance and waterproofing effectiveness.

2. What is the setting time of QD-003?

QD-003 has a general setting time of 3 to 12 hours, providing adequate working time for mixing, application, and finishing while ensuring timely hardening to maintain construction schedules.

3. Can QD-003 be applied to damp substrates?

Yes. QD-003 is formulated to provide reliable adhesion even on damp substrates. However, the substrate should be free of standing water, laitance, oil, grease, and other contaminants that may affect bonding.

4. Is QD-003 suitable for potable water contact applications?

Please consult the technical data sheet or contact our technical support team for specific information regarding potable water applications. For water tanks and pools, we recommend verifying the product's suitability based on local regulations and project requirements.

5. What is the coverage rate per 25 kg bag?

Coverage depends on the thickness of application. For a 10 mm thick layer, approximately 25 kg of QD-003 will cover 0.8 to 1.0 square meters. For specific project requirements, please consult the technical data sheet or contact our technical support team.

6. Does QD-003 require a primer before application?

In most cases, QD-003 can be applied directly to clean, sound substrates without the need for a primer. However, for optimal results in challenging conditions or on difficult substrates, we recommend consulting the technical data sheet or contacting our technical support team.

