



QD-85/100

Sleeve Grouting Material

for rebar connection · precast concrete · ultra-high strength

1 · Scope of Application

Mainly used for rebar sleeve grouting connection in prefabricated assembly concrete structures, secondary grouting for equipment foundations, anchor bolt anchoring, and steel structure column base plate grouting.

2 · Product Features

① Ultra-high fluidity and excellent slump retention, superior construction workability

② Adapts to void-free filling in narrow gaps and pores

③ Micro-expansion for tight, secure connections

④ High early strength and ultra-high late strength development

⑤ Strong bond with steel bars and sleeves for effective stress transfer

⑥ Non-corrosive to steel reinforcement

3 · Executive Standard

JG/T 408-2019 — Grouting Material for Rebar Sleeve Connection

4 · Technical Specifications

Testing Item	Performance Requirement	QD-85 Typical Value	QD-100 Typical Value
Fluidity (mm)	Initial	≥ 300	≥ 300
Fluidity (mm)	30 min	≥ 260	≥ 260
Compressive Strength (MPa)	1d	≥ 35	≥ 40
Compressive Strength (MPa)	3d	≥ 60	≥ 70
Compressive Strength (MPa)	28d	≥ 85	≥ 100
Vertical Expansion Rate (%)	3h	0.02 – 2.0	0.02 – 2.0
Vertical Expansion Rate (%)	24h – 3h diff	0.02 – 0.50	0.02 – 0.50
Free Expansion Rate in 24h (%)	—	≤ 0.5	≤ 0.5
Chloride Ion Content (%)	—	≤ 0.03	≤ 0.03

Testing Item	Performance Requirement	QD-85 Typical Value	QD-100 Typical Value
Bleeding Rate (%)	—	0	0

5 · Usage Instructions & Precautions

1 Pre-inspection

Before use, carefully inspect the grout sleeve to ensure that both the grout inlet and outlet ports are unobstructed; if any blockage is detected, it must be cleared immediately.

2 Mixing

Add water and mix according to the recommended water-to-material ratio. It is recommended to use a low-speed forced mixer for approximately 5 minutes. If a handheld high-speed mixer is used—which tends to generate a significant number of air bubbles—allow the mixture to stand undisturbed for 2 minutes until all bubbles have completely dissipated before proceeding with grouting. The mixed grout material should be used within 30 minutes of preparation.

3 Grouting Procedure

During grouting, strictly adhere to the "**low-in, high-out**" principle: inject the grout through the lower inlet port until it flows out of the opposite end, at which point both the inlet and outlet ports should be sealed.

4 Curing

The grouted area must not be disturbed for **24 hours** following the grouting operation.

5 Strength Requirement

The temporary supports for the precast components may be removed—and subsequent structural hoisting and construction work may proceed—only after the compressive strength of the grouted area has reached **35 MPa**.

6 · Packaging & Storage

- **Packaging:** Recyclable sealed bags, available in 25 kg or 50 kg units.
- **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.

Hubei Qiandao New Materials Co., Ltd. · Technical Data Sheet · QD-85/100 (v2.0)

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