F11 – Polymer Waterproof Mortar

High-Performance Polymer-Modified Waterproof Mortar

Product Description

F11 Polymer Waterproof Mortar is a high-performance cementitious waterproofing material formulated with polymers, selected cements, graded aggregates and functional additives. It offers excellent adhesion, crack resistance, impermeability and long-term durability. Suitable for both industrial and civil construction projects, it is widely used in roofing, basements, tunnels, pools, and waterproofing of critical infrastructure.

Key Features & Benefits

• Excellent waterproofing and impermeability performance.

• High compressive, flexural and bonding strength.

• Crack resistance and shrinkage control.

• Durable against aging, alkali, heat and freeze–thaw cycles.

• Easy to mix, apply and cure with good workability.

• Environmentally friendly, safe for civil and industrial use.

Scope of Application

• Roofs, basements, underground structures and retaining walls.

• Pools, reservoirs, culverts and water conservancy projects.

• Subways, tunnels, civil defense and mining projects.

• Bathrooms, kitchens, balconies and interior waterproofing.

• Industrial facilities, civil housing and public infrastructure requiring waterproof protection.

Performance Parameters (JC/T 984-2011)

Test Item	Unit	Requirement
Setting time (initial)	min	≥ 45
Setting time (final)	h	≤ 24
Compressive strength (wet curing, coating specimen)	MPa	7 d ≥ 0.5
Compressive strength (standard curing, mortar specimen)	MPa	7 d ≥ 1.0; 28 d ≥ 1.5
Compressive strength	MPa	28 d ≥ 24.0
Flexural strength	MPa	28 d ≥ 8.0
Flexibility (lateral deformation)	mm	28 d ≥ 1.0
Bonding strength	MPa	7 d ≥ 1.0; 28 d ≥ 1.2
Alkali resistance	—	No cracking or peeling
Thermal stability	—	No cracking or peeling
Freeze–thaw resistance	—	No cracking or peeling
Water absorption	%	≤ 4.0
Shrinkage	%	≤ 0.15

Construction Process

• Remove dust, oil, laitance and loose particles; pre-wet the base until surface is saturated but without free water.

• Mix mortar with clean water (20±2 °C) according to recommended ratio; use mechanical mixer until homogeneous.

• Apply evenly by trowel, brush or spray. Recommended thickness: 2–3 mm per coat, total 4–6 mm.

• For multilayer construction, wait until the previous layer has set before recoating; embed fiberglass mesh if required.

• Keep surface moist for at least 24 h after application; protect from direct sunlight, rain or freezing.

Packaging & Storage

• Supplied in 25 kg moisture-proof composite bags.
• Shelf life: 12 months in dry, ventilated storage.
• Avoid moisture during transport and storage.
• Opened bags must be resealed and used promptly.

Disclaimer

The information provided in this Technical Data Sheet is based on laboratory tests and site experience and is offered in good faith. Sino-sina Building Materials Co., Ltd. makes no warranty for results obtained under conditions beyond its control. Users should perform on-site trials to confirm suitability before large-scale application.