



Kuaizhuang® – Assembled Special Grouting Material for Wind Power

External Prestress Non-Shrink Grouting Material for Wind Power Hybrid Towers

Product Description

Kuaizhuang® is a high-performance non-shrink grouting material specially designed for wind power hybrid towers and external prestress anchorage. It features low water demand, high density, excellent impermeability, stable expansion and durability. It ensures reliable bonding with prestressing tendons and ducts, prevents shrinkage and bleeding, and provides long-term stability under complex conditions.

Key Features & Benefits

- Low water demand – improves density, impermeability and bonding.
- Stable expansion – no segregation or bleeding during grouting.
- Fast setting – ensures early strength and short construction cycles.
- Durability – corrosion resistant, reliable in harsh onshore and offshore environments.

Performance Parameters

Test Item	Technical Index	Standard
Water-cement ratio (%)	$\leq 0.26-0.28$	JTG/T 3650-2020
Initial setting time (h)	≥ 5	JTG/T 3650-2020
Final setting time (h)	≤ 7	JTG/T 3650-2020
Fluidity (s, initial)	14–20	T/CEC 5008-2018
Fluidity (s, 30 min)	20–25	T/CEC 5008-2018
Fluidity (s, 60 min)	25–30	T/CEC 5008-2018
Bleeding rate (%)	0	T/CEC 5008-2018
Pressure bleeding (%)	≤ 2.0	T/CEC 5008-2018
Free expansion (%) 3h	0–2	GB/T 50080
Free expansion (%) 24h	0–3	GB/T 50080
Compressive strength (MPa, 3d)	≥ 30	GB/T 17671
Compressive strength (MPa, 7d)	≥ 35	GB/T 17671
Compressive strength (MPa, 28d)	≥ 50	GB/T 17671
Flexural strength (MPa, 3d)	≥ 6	GB/T 17671
Flexural strength (MPa, 7d)	≥ 8	GB/T 17671
Flexural strength (MPa, 28d)	≥ 10	GB/T 17671
Steel corrosion effect	None	GB/T 50448

Product Usage

- External prestressed duct grouting and tendon anchorage in wind power hybrid towers.
- Anchorage systems in large-scale wind turbine foundations.
- Infrastructure projects such as highways, bridges, and nuclear power requiring durable non-shrink grout.

Packaging & Storage

- 25 kg moisture-proof composite bags.
- Shelf life: 3 months in dry, ventilated storage.

- Protect from moisture and direct sunlight during storage and transport.

Disclaimer

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