



WHITE ANTI-CRACKING GGBFS CSA CEMENT 62.5

High whiteness | 62.5 grade strength | Anti-cracking | Corrosion resistance | Low hydration heat | Low carbon

PRODUCT OVERVIEW

White Anti-cracking GGBFS CSA Cement 62.5 is a premium hydraulic cementitious material produced by grinding low-iron calcium sulphoaluminate / dicalcium silicate clinker with GGBFS and gypsum. It is designed for high-end decorative systems and cement-based materials that require whiteness, high strength, anti-cracking performance, durability and a cleaner low-carbon profile.

Compared with ordinary white Portland cement, this product combines higher crack resistance, lower hydration heat, better resistance to sulphate and acid environments, and stronger late-age strength. It is especially suitable for decorative mortar, terrazzo, white concrete, GRC / UHPC decorative components, self-leveling, and mortar or concrete used in high-chemical-corrosion environments.

KEY BENEFITS

High Whiteness Hunter whiteness ≥87, with typical production whiteness around 88–90 for premium white decorative systems.	62.5 Grade Strength Fast strength growth and high final strength, supporting demanding mortar, concrete and decorative applications.	Anti-cracking Performance Controlled expansion and lower drying shrinkage help reduce cracking risk in decorative and floor systems.
Corrosion Resistance Excellent resistance to sulphate attack and good acid-corrosion performance for harsh service conditions.	Low Hydration Heat Typical 7-day hydration heat is much lower than white Portland cement, helping large pours and crack control.	Low Carbon Value Typical carbon emission is around 70–90 kg/t, offering a clear sustainability advantage for high-end green projects.

TYPICAL APPLICATIONS

- UHPC decorative components, high-strength GRC products, artistic concrete, decorative facades, sculptures and 3D printed buildings.
- Inorganic self-leveling floors, colored terrazzo floors, polished decorative floors, food workshop floors and livestock breeding floors.
- Marine engineering, chemical storage tanks, sewage pipes and other sulphate / acid combined corrosion environments.
- Anti-crack mortar, decorative mortar, repair mortar, tile adhesive, tile grout, putty and building coating systems.
- Large-sized concrete components and large-volume concrete where low heat and crack resistance are important.

TECHNICAL DATA

Item	Specified value / requirement (Q/TBJX 35-2025)
Product type	White Anti-cracking GGBFS CSA Cement
Product code / strength grade	WCG·SAC / 62.5
Blaine fineness	≥400 m²/kg
Hunter whiteness	≥87
Setting time	Initial ≥45 min; Final ≤600 min
Soundness (boiling test)	Qualified
Loss on ignition / Cl⁻ / alkali	LOI ≤5.0%; chloride ≤0.06%; alkali (Na₂O+0.658K₂O) ≤1.0%
Free expansion, 28 d	In water ≤0.15%; in air ≥-0.10%
Hydration heat	3 d ≤190 kJ/kg; 7 d ≤220 kJ/kg
Compressive strength	3 d ≥25.0 MPa; 7 d ≥45.0 MPa; 28 d ≥62.5 MPa
Flexural strength	3 d ≥4.5 MPa; 7 d ≥8.0 MPa; 28 d ≥10.0 MPa

Test methods: chemical composition GB/T 176; strength GB/T 17671; setting time and soundness GB/T 1346; Blaine fineness GB/T 8074; whiteness GB/T 2015 Annex A; hydration heat GB/T 12959; free expansion JC/T 313; sulphate resistance GB/T 749.

PACKAGING AND STORAGE

- 25 kg bags, 1,000 kg jumbo / bulk bags or bulk delivery; bags to GB/T 9774, net content not less than 99% of the marked mass.
- Store dry, covered and well ventilated; keep separate from other cements and protect from moisture and rain.

SALES HIGHLIGHTS

Feature	Sales value
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TANGSHAN POLAR BEAR BUILDING MATERIAL CO., LTD

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Beijing Office

High whiteness	Supports premium white and light-colored architectural materials with strong decorative appeal.
High strength	Typical 28-day compressive strength of about 67.5–72.0 MPa, well above the 62.5 grade minimum, suiting high-value mortar and concrete systems.
High crack resistance	Typical 28-day drying shrinkage of only about 0.05%–0.09%, aided by compensating expansion.
Sulphate resistance	56-day sulphate erosion coefficient typically 1.1–1.2 (selective indicator, standard ≥ 1.0), far above conventional white Portland cement.
Acid resistance	56-day erosion coefficient in pH 3.0 sulphuric acid typically 0.9–1.0, attractive for chemically aggressive service.
Low hydration heat	Typical 7-day heat of 190–210 kJ/kg (standard limit ≤ 220 kJ/kg), reducing temperature rise in large sections.
Low-carbon position	Typical emissions of only about 70–90 kg/t, far below typical white Portland cement.

PERFORMANCE COMPARISON VS WHITE PORTLAND CEMENT

Item	White Anti-cracking GGBFS CSA Cement 62.5	Typical 52.5-grade White Portland Cement (reference)
Hunter whiteness	88–90	88–90
Strength	3 d compressive: 30.0–35.0 MPa 28 d compressive: 67.5–72.0 MPa 28 d flexural: 10.5–12.0 MPa	3 d compressive: 28.0–33.0 MPa 28 d compressive: 56.5–60.0 MPa 28 d flexural: 8.5–9.2 MPa
Length change	28 d dry shrinkage: 0.05%–0.09%	28 d dry shrinkage: 0.15%–0.23%
Corrosion resistance	56 d sulphate erosion coefficient: 1.1–1.2 56 d erosion coefficient in pH 3.0 sulphuric acid: 0.9–1.0	56 d sulphate erosion coefficient: 0.4–0.5 56 d erosion coefficient in pH 3.0 sulphuric acid: 0.6–0.7
Hydration heat	7 d: 190–210 kJ/kg	7 d: 360–380 kJ/kg
Carbon emission	70–90 kg/t	900–1200 kg/t

DIRECTIONS FOR USE

- Use as a white special cement binder in optimized mortar, floor, decorative concrete or precast formulations. It is not a ready-to-water finished mortar.
- Trial mix is recommended to confirm workability, whiteness, strength, shrinkage, curing response and final appearance.
- For terrazzo, artistic concrete and decorative systems, optimize aggregate color, pigments, water-cement ratio and curing condition.
- For corrosive environments, final performance should be verified according to medium type, concentration and service exposure.

PRODUCT POSITIONING

- Main focus: high-end decoration, white decorative mortar, terrazzo, self-leveling, anti-crack mortar, GRC / UHPC decorative products and white concrete systems.
- Value focus: customers needing a differentiated white cementitious material with anti-crack, durable and low-carbon advantages.
- Target customers: dry mix mortar manufacturers, decorative materials producers, GRC / UHPC factories, terrazzo producers and chemical-resistant flooring users.

Specified values are the compliance basis under Q/TBJX 35-2025. Figures shown as "typical" are indicative product data for reference and are not per-batch minimum guarantees. Final acceptance follows the same-number mill test report and contract terms. The White Portland cement figures are reference comparison data under the stated test conditions, not universal guaranteed values. Carbon-emission figures depend on the accounting boundary and should be independently verified before external citation. Sulphate/acid resistance is a selective indicator and must be agreed in the contract or technical protocol when required.

QUALITY, DELIVERY AND SAFETY

- Batch acceptance shall follow the same-number mill test report, retained sample and contract terms; agreed project-specific tests take precedence where applicable.
- Avoid breathing dust and prolonged skin contact. Wear suitable dust protection, safety goggles and gloves during handling, mixing and cleaning.
- In case of eye contact, rinse immediately with plenty of clean water and seek medical attention. Refer to the current Safety Data Sheet (SDS) for full safety information.

COMPANY INFORMATION

Item	Information
Company	Tangshan Polar Bear Building Materials Co., Ltd.
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