



**TANGSHAN POLAR BEAR BUILDING MATERIAL CO.,
LTD**

174 West Zhaoshang Rd. Leizhuang, Luanxian County Tangshan, Hebei 063705 China

Beijing Office

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	62.5 Grade Strength	Anti-cracking Performance
Hunter whiteness ≥87, with typical production whiteness around 88–90 for premium white decorative systems.	Fast strength growth and high final strength, supporting demanding mortar, concrete and decorative applications.	Controlled expansion and lower drying shrinkage help reduce cracking risk in decorative and floor systems.
Corrosion Resistance	Low Hydration Heat	Low Carbon Value
Excellent resistance to sulphate attack and good acid-corrosion performance for harsh service conditions.	Typical 7-day hydration heat is much lower than white Portland cement, helping large pours and crack control.	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	Typical value / requirement
Product type	White Anti-cracking GGBFS CSA Cement
Strength grade	62.5
Blaine fineness	350 m²/kg
Hunter whiteness	≥87
Setting time	Initial ≥45 min; Final ≥600 min
Soundness of cement	Boiling test: Qualified
Free expansion rate, 28 d	In water ≤0.15%; In air ≥-0.10%
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

PACKAGING AND STORAGE

- 25 kg bags
- 1,000 kg jumbo bags / bulk bags
- Store in a dry, covered and well-ventilated place. Protect from moisture and rain.



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SALES HIGHLIGHTS

Feature	Sales value
High whiteness	Supports premium white and light-colored architectural materials with strong decorative appeal.
High strength	Typical 28-day compressive strength reaches about 67.5–72.0 MPa, making it suitable for high-value mortar and concrete systems.
High crack resistance	Typical 28-day free expansion is about 0.08%–0.13%, while drying shrinkage is only about 0.05%–0.09%.
Sulphate resistance	56-day sulphate erosion resistance coefficient is about 1.1–1.2, much better than conventional white Portland cement.
Acid resistance	56-day erosion coefficient in pH 3.0 sulphuric acid is about 0.9–1.0, making it attractive for chemically aggressive environments.
Low hydration heat	Typical 7-day hydration heat is 180–200 kJ/kg, helping reduce temperature rise and crack risk in large sections.
Low-carbon position	Typical carbon emission is only around 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	White Portland Cement
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%–0.20%
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: 180–200 J/g	7 d: 360–380 J/g
Carbon emission	70–90 kg/t	900–1200 kg/t

DIRECTIONS FOR USE

- Use as a white special cement component in optimized mortar, floor, decorative concrete or precast formulations.
- 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.

Note: Values above are typical product data and performance information for sales reference. Final performance should be confirmed by laboratory trial mix, raw-material compatibility and project conditions.

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