

Dengfeng Smelting Materials produces a quick-sealing leak-stopping material made primarily from alumina cement with added gypsum and other additives. This material is a fast-setting hydraulic binder with high early strength and slight expansion properties.

Leveraging alumina cement's fundamental properties, this material reacts with gypsum additives to form expansive crystalline hydrates—namely, calcium sulfoaluminate hydrate (ettringite). This expansion fills gaps and creates compressive stress, densifying the hardened structure and preventing shrinkage cracks at bonding points. Unlike typical leak-stopping agents using alunite-based expansion agents, which may introduce alkalis, this material is alkali—and chloride—free, achieving expansion solely through hydration products.

This makes it a reliable, effective, and rapid solution for leak-sealing in diverse settings, including emergency water-stopping in underground works, bridges, reservoirs, water tanks, tunnels, culverts, mines, ships, and building structures.

# **Quick-sealing Leak-stopping Material**

60% 70% 80% Al<sub>2</sub>O<sub>3</sub> Cement - Product Data

The leak-stopping material based on alumina cement is free from harmful alkalis, chlorides, and does not require additional expansion agents. Its slight expansion relies solely on hydration products, making it ideal for sealing and waterproofing. Key features include rapid hardening, high early strength, strong adhesion, waterproofing, anti-corrosion, and durability.

This material is suitable for emergency water-stopping and repair projects in underground works, bridges, reservoirs, water tanks, tunnels, culverts, mines, ships, and buildings.

Initial Setting Time	<3 min		Water	30%
Final Setting Time	<5 min		addition	30%
Paste	15min	30min	Impormoshilitu	Curing neat paste sample for 3 days in water with no water
Compressive	>10Mpa	>25 Mpa	Impermeability	permeability under 1Mpa pressure

The cement production process at Dengfeng Smelting Materials is designed to achieve maximum consistency. Through precise and stringent control, we can accurately ensure the refractory quality and performance of the cement. This approach significantly reduces response times and enhances production flexibility, allowing us to deliver superior service.

## Cement Testing and Quality Control

Dengfeng Smelting Materials' aluminate cement is engineered to actively meet customer requirements. Key qualities of high-performance cement include setting consistency, flowability, strength, particle size distribution, and precise chemical composition. Our quality control system is meticulously designed to ensure consistent product quality, enhancing the reliability and performance of customers' applications.

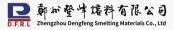
Our cement undergoes rigorous testing to meet standards, including flowability, setting time, and strength assessments based on the Chinese GB201/T2015 standard with standardized sand. Tests include specific surface area, initial and final setting times, flexural and compressive strength. Chemical composition is verified through X-ray fluorescence spectroscopy (XRF).

#### **Packaging Options**

- Bulk bags
- Small bags

#### Shelf Life and Storage

To ensure longevity, all Dengfeng Smelting aluminate cements should be stored in original, sealed packaging under dry conditions. Experience shows that even after prolonged storage, performance remains unaffected if the product is kept in optimal conditions. However, direct sunlight may degrade plastic packaging over time, necessitating additional protection to avoid UV exposure. Shrink-wrap should remain intact until use, as removing it may reduce the cement's shelf life.



This brochure provides general guidance on the basic properties and characteristics of various Dengfeng Smelting Materials products (hereinafter referred to as "Product Information") for potential customers. Dengfeng Smelting Materials makes no guarantee or warranty as to the accuracy or completeness of the Product Information in this brochure.

- Nothing in this brochure should be interpreted as providing any express or implied warranties or obligations by Dengfeng Smelting Materials regarding the Product Information or its use, including but not limited to warranties of merchantability, fitness for a particular purpose, or non-infringement of intellectual property rights.
- Each user of Dengfeng Smelting Materials products is responsible for determining the appropriate application and suitability of the Product Information within their specific operations. Users should exercise due caution when considering product data sheets, Product Information, and any other technical information provided by Dengfeng Smelting Materials, including usage conditions, warnings, and other advisories.
- Dengfeng Smelting Materials reserves the right to modify Product Information at its sole discretion from time to time without prior notice.
- Our company is committed to bearing legal responsibility for any personal injury or property damage resulting from product defects. Users should carefully review the product instructions and safety guidelines prior to use.

### **Headquarters**

Consultation Phone:

0371-62976006

Sales Phone:

0371-62976009, 6297700

Address

Xuanhua Town, Dengfeng City, Zhengzhou, Henan Province, China

# **Global Business Team**

Manager Zhang: +86 13608687776 Manager Sun: +86 13949024780 Email: info@dfrlglobal.com

Address: Block A, Greenland Window, Zhengdong New District, Zhengzhou, Henan Province, China