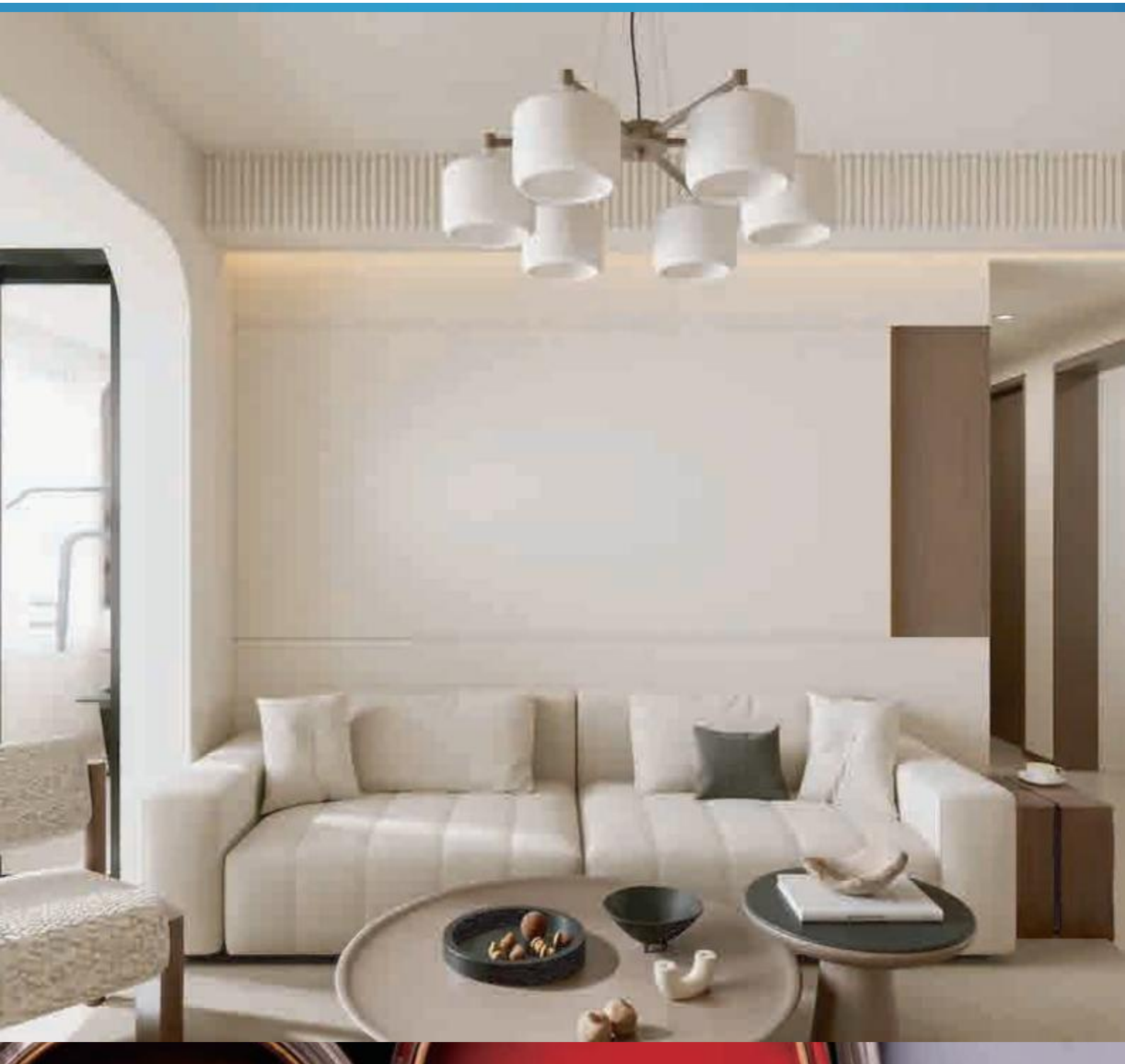
Delshine

product specification

Indoor odorless aerogel insulation coating

AFJZ-NJ-B2



Product description

The mold growth, condensation, and the perceived damp, cold sensation during winter—all caused by high indoor humidity—stem primarily from inadequate indoor humidity levels and poor thermal insulation and energy efficiency of buildings. Since concrete and conventional interior wall paints readily absorb water, possess high thermal conductivity, and lack thermal inertia, they are prone to causing condensation and mold growth. By using aerogel-based interior wall coatings, moisture within walls can be effectively isolated, the indoor dew point can be raised, the sensation of dampness and cold in rooms can be reduced, and the efficiency of air conditioning systems can be improved, thereby lowering energy consumption.

Indoor Odor-Resistant Aerogel Insulation Coating (AFJZ-NJ-B2)

Functions: interior wall insulation, mold resistance, condensation prevention, soundproofing, and waterproofing

Use: Indoor home decoration, public spaces

Specification: 10 kg/20 L

Dosage: 0.6 (kg/mm/m²)

Product Parameter

The indoor odorless aerogel insulation coating effectively addresses issues such as high indoor humidity, mold growth, and condensation in southern climates. Its aerogel-based thermal insulation properties enable significant energy savings and enhanced comfort levels throughout both summer and winter seasons.

project	parameter
pigment	White (Adjustable)
heat conductivity	≤0.045W/m`K
density	≤0 .60g/cm 3
cohesional strength	≥0.6MPa
Waterproofing performance	After 96 hours of water immersion, no abnormalities were observed.
fire-protection rating	B2 (Customizable)
VOC content	Qualified (≤80 g/L)
Is it wear-resistant?	Micro-flexibility
Long-term operating temperature	<100℃

Product Features

The indoor odorless aerogel insulation coating retains the ease of application associated with traditional interior wall coatings, while also offering aerogel-based thermal insulation, sound insulation, and eco-friendly properties. The application process for this aerogel coating is identical to that of conventional interior wall coatings, yet it incorporates the unique characteristics of aerogel technology. During use, users can clearly perceive a sense of environmental comfort. The key benefits are as follows:

1. Reduce the temperature difference between morning and evening temperatures
2. Effective energy conservation
3. Mold and moisture resistance
4. Long service life

Usage Instructions

Substrate Type: Interlayer Structure	explain
Uneven concrete substrate + leveling putty + alkali-resistant sealing primer + indoor odorless aerogel insulation coating	The outer layer of the eco-friendly, odor-control interior wall aerogel coating may be topped with a surface finish as required — such as a colored flat-coat coating with odor-control properties or a fine-grained sheepskin-effect artistic coating; rusted iron sheets require rust treatment.
Flat concrete substrate + alkali-resistant sealing primer + indoor odor-control aerogel insulation coating	
Steel sheet roof – substrate + rust-preventive primer + indoor odorless aerogel insulation coating	

Design framework

Appearance Description: Color is adjustable

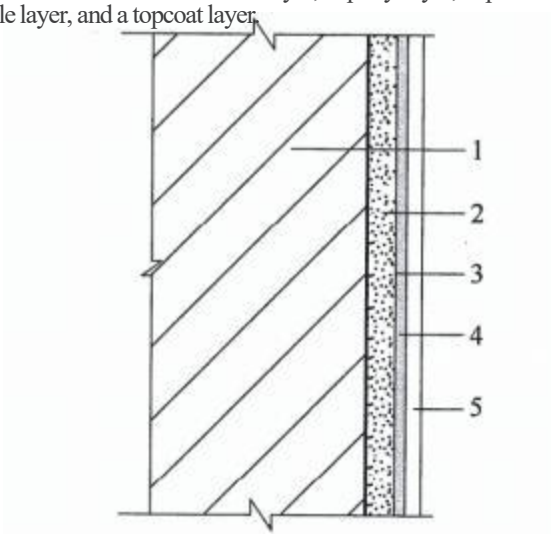
Product Usage and Instructions

All existing coating application techniques are suitable for applying aerogel coatings; no additional training or customization of specialized application equipment is required.

Project – Reference Thickness (mm)	
Leveling putty ~	
Alkali-resistant priming coat <0.5	
Indoor odor-control aerogel insulation intermediate coat – 1–3	
Finishing layer ~	
performance specification	Thermal inertia: reduces the rate of space cooling; Thermal insulation: reduces air conditioning energy consumption; Prevention of condensation: Reduces conditions for wall condensation during the humid season (when temperatures rise and humidity increases).

Structural design

When an embedded insulation system utilizing an indoor odorless aerogel insulation coating system is employed, the basic construction shall consist of a wall substrate layer, a putty layer, a primer layer, a middle layer, and a topcoat layer.



Basic construction for interior wall insulation using a thick aerogel thermal insulation coating system

1 – Wall substrate;

2 – Putty layer;

3 – Base coat;

4 – Intermediate coat;

5 – Finish coat

Product description

project	explain
material	Alkali-resistant priming coat
	Indoor odorless aerogel insulation coating
	Wear-resistant thermal insulation coating (for a velvet texture – remove this item if applicable)
thickness	Alkali-resistant priming coat: <0.5 mm aerogel insulation intermediate coat: 1–3 mm
Construction Precautions	If the existing wall surface has any holes, it should be leveled using putty; if the existing wall surface has any stains, a protective alkaline-resistant primer should be applied. The alkaline-blocking primer should be applied by roller coating; after 24 hours, apply the thermal insulation intermediate coat; the indoor odorless aerogel insulation coating should be applied by brush coating – pay special attention to the edge areas. Apply the next layer only after the previous layer has fully cured.

Product Application

The eco-friendly, odorless interior wall aerogel coating retains the ease of application and other advantages associated with traditional interior wall coatings, while also offering aerogel-based thermal insulation, sound insulation, and eco-friendly properties. The application process for this aerogel coating is identical to that of conventional interior wall coatings; moreover, it incorporates the inherent characteristics of aerogel technology. During use, users can clearly perceive a sense of environmental comfort.

Home renovation

Effectively prevents water leakage and mold growth on walls.

Commercial space

Excellent sound insulation performance and effective energy consumption reduction

public space

Long service life, enhancing environmental comfort.

Application case

The eco-friendly, odorless interior wall aerogel coating retains the ease of application and other advantages associated with traditional interior wall coatings, while also offering aerogel-based thermal insulation, sound insulation, and eco-friendly properties. The application process for this aerogel coating is identical to that of conventional interior wall coatings; however, it incorporates the unique characteristics of aerogel technology.



Central South University dormitory building – full application of 2 mm aerogel coating;

Underground garage renovation;
Old residential building renovation project in a residential complex in Chongqing.



Commercial housing interior thermal insulation and insulation services; Cultural and Arts Center renovation; Classroom renovation

Preliminary work for construction

Function: Spraying	Scratch /Roll coating
Base Surface Requirements	1. The substrate surface shall be free of grease, dust, or loose particles. 2. The wall surface must be completely dry; the moisture content on the wall surface (or putty surface) must be less than 14%, and the pH value must be less than 10.
Construction tools	Spraying machine, roller, masking paper, mixer, protective mask, protective equipment Workwear, safety rope, safety helmet, protective footwear, safety goggles, protective film
	Putty knife, scraper, roller, sticker paper, mixer, protective mask, protective clothing, safety rope, safety helmet, protective footwear, goggles, protective film
Repainting interval: Apply the second coat only after the first coat has dried completely; typically, a 24-hour waiting period is recommended.	
Construction Conditions: Do not commence construction if the ambient temperature is below 5°C. When the ambient humidity exceeds 85%, the recoating time should be extended.	
Construction Method: Before construction, mix using an electric mixer for at least one minute.	
Tool cleaning: Rinse promptly with tap water.	

Operation sequence

No. – New concrete surface	Old concrete surface

1	Base surface preparation: Clean the wall surface, removing any loose material, hollow spots, or dust. Dirt, etc. If the wall surface has cracks, kraft paper or mesh fabric can be used. Apply to the gap. The wall substrate is an original concrete surface; apply the coating first. White Alkali-Resistant Primer	Base surface preparation: All interior walls must be removed and cleaned to eliminate any loose material. Loose areas, dust, dirt, or other debris; for example, on walls. For cracks, you can cover the gap with kraft paper or mesh fabric.
2	Wall repair: Repair hollow areas or uneven wall surfaces	
3	Apply putty: Depending on the flatness of the wall surface, allow each coat of putty to dry before applying the next coat. Finally, sand the surface smooth with sandpaper and clean the wall.	
4	Apply white wall primer: After completing the surface preparation, apply a white wall primer to enhance the adhesion of the substrate and reduce the occurrence of wall hollowing.	
5	Apply interior wall aerogel insulation coating by spraying, scraping, or brushing	
6	Spray surface coating (colored or colorless surface coating can be selected; this step can be omitted as needed)	
7	Final inspection: After completing the above steps, conduct a final check to ensure that the wall coating is applied evenly, with no missed areas or color discrepancies.	