Insulation 1

TECHNICAL DATA

Product name: Aerogel Water Nano Thermal Insulation Coating AG- BRCJZ

Current version: 1.0.1, issued: 01.06.2023 **Replaced version: 1.0.0, issued: 22.02.2023**

Product description

Brief description	AG- BRCJZ Aerogel insulating coating is for building application. The main components are high performance resin emulsion, SiO2 aerogel and hollow glass beads as heat insulation materials, and water as solvent. The coating is a high-performance thermal insulating material synthesized by special process. A dense vacuum layer will be formed on the surface of the coated material, which effectively blocks the heat conduction of the solar radiation and the heat radiation in the air, and reduces the thermal exchange between the inside and outside of the coating.
Material type	Liquid
Colour	White
Product features	(1) The material is light and crack resistant, without falling-off problem. (2) Simple construction, high utilization of space. (3) Greatly reducing inorganic construction waste. (4) Avoiding falling-off of thick insulation layer.
Applications	It is mainly used for thermal insulating of building exterior decoration, building curtain wall, wall roof, etc. It is also suitable for industrial medium and low temperature pipeline, storage tank, communication base station, ship, vehicle transportation industry, etc.

Technical parameters

Product Model	**AG-BRCJZ01**	**AG-BRCJZ02**	**Standard/Test method**
Packing	11kg/25L	11kg/25L	
Construction Method	Spraying paint	Scratch coating	
Appearance	White Liquid		
Thermal Conductivity [W/（m·K）]	≤0.044（25℃）		GB/T 10295-2008
Service Temp. [℃]	-40～120		
Construction Temp. [℃]	5～40		
Usage amount（thickness 2mm）[kg/㎡]	1.5	1.1	
Surface Drying time [h]	≤4		

Advantages

Safety and Environment Friendly: It is water-based material. It contains no volatile harmful compounds, both of the production and utilization process are safe, eco-friendly and non-toxic. While insulation materials like plastic foam insulation, mineral fibers and glass wool will produce harmful substances residues.

Easy Construction and Low Cost: The construction of traditional thermal insulation material need 7~15 courses, while aerogel coating has only 5 construction courses. The spraying process can effectively reduce the difficulty of construction, shorten the construction period and ensure construction safety.

Noise Reduction and Long Service Life: Aerogel paint has good sound insulation and noise reduction functions on buildings. In combination with water based heat reflective materials and water based waterproof material, thermal insulation and waterproofing can be achieved, and service life can reach up to ten years.

Thinner Thickness and Better Thermal Insulation Property: It contains aerogel thermal insulating coating and water based thermal reflective material, with function of heat preservation and isolation. Coating of 2-3mm thickness will give same insulation effect as traditional insulation materials of 30-40mm thickness.

Flame Retardant, Anti-cracking and Self-cleaning: Combustion performance of aerogel coating is Class A2 of building fire protection, with a better fire resistance than that of traditional insulation materials. In addition, the aerogel coating has excellent crack resistance and self-cleaning property, without problem of cracking or even falling off of thermal insulation materials and external surface due to thermal expansion and cold shrinkage.

Construction Instructions

Aerogel insulating coating shall be applied by spraying. The insulation material shall be prepared on site. After evenly mixing, 5% - 10% water can be added according to the construction conditions, and evenly mixed by mixing tools. Coating shall be applied at least two times.

Construction Requirement:

Substrate	**Recoating Time (h)**			**Construction Method**	**Construction Times**
Wall	5 ~ 15℃ ≥8	15 ~ 25℃ ≥6	25 ~ 35℃ ≥4	Spraying/ Scratch	≥2

Precautions

The product shall be transported according to the general mode, and shall be protected from rain and sun exposure during transportation. The product should be stored in a sealed package, dry and ventilated to avoid direct sunlight. The storage temperature is 5 ~ 35℃. Expiration date 1 year. For the best result it should be used up within 1 day after the opening.

Note: the product technical information and relevant data mentioned in the above data are the experimental test values of the manufacturer, which are only for reference, not as legal interpretation and guarantee. Please use them after testing and confirmation according to the working conditions required by your company before use.