



GOMIN 气凝胶涂料 Aerogel Coating

产品特点 Product Features

保温隔热、防霉防潮、防水止漏、水性环保、防水冷凝、附着力强。气凝胶涂料是一种高性能的建筑涂料，具有多种优异的特性，广泛应用于建筑内外墙、屋顶和厂房等场景。该涂料具备卓越的保温隔热性能，能够有效减少热量传递，降低室内外温差，从而在夏季保持室内凉爽，冬季则有助于保温，减少能源消耗。气凝胶涂料具有防霉防潮的特性，能够有效防止墙体因潮湿环境而滋生霉菌，保持墙面的清洁和美观。此外，该涂料还具备优异的防水止漏功能，能够有效防止水分渗透，避免墙体因渗水而导致的损坏。

气凝胶涂料采用水性环保配方，无毒无害，符合现代环保要求，施工过程中不会产生有害气体，对人体和环境友好。同时，该涂料还具有防水冷凝的特性，能够有效防止墙体表面因温差而产生的冷凝水，避免墙面潮湿和发霉涂料的附着力极强，能够牢固地附着在各种基材表面，不易脱落，确保长期使用的稳定性和耐久性。

Thermal insulation, mold and moisture resistance, waterproof and leak-proof, water-based and environmentally friendly, condensation prevention, and strong adhesion. GM-GX aerogel coating is a high-performance architectural coating with a variety of excellent properties, widely used in scenarios such as building interior and exterior walls, roofs, and factory buildings. This coating possesses exceptional thermal insulation performance, effectively reducing heat transfer and minimizing indoor-outdoor temperature differences, thereby keeping interiors cool in summer and aiding in heat retention during winter, reducing energy consumption. The aerogel coating has mold and moisture resistance properties, effectively preventing mold growth on walls due to damp environments, maintaining clean and aesthetically pleasing surfaces. Additionally, the coating offers excellent waterproof and leak-proof functionality, effectively preventing water penetration and avoiding damage caused by water seepage. The aerogel coating adopts a water-based and environmentally friendly formula, non-toxic and harmless, meeting modern environmental requirements. It does not release harmful gases during application, making it safe for humans and the environment. At the same time, the coating has condensation prevention properties, effectively preventing condensation on wall surfaces due to temperature differences, avoiding dampness and mold. The coating exhibits extremely strong adhesion, firmly adhering to various substrate surfaces, resistant to peeling, ensuring long-term stability and durability.

性能参数 Performance Parameters

项目Item	参数Parameter
漆膜颜色 Film Color	常规白色 (可定制颜色) Standard white (custom colors available)
气凝胶涂料 Aerogel Coating	疏水型 Hydrophobic type
密度 Density	450g/L
打磨性 Sanding Property	手工可打磨 Can be sanded manually

极低导热系数Extremely low thermal conductivity

k-value: 0.029W/(m·k)

防霉和防潮 MOLD & MOISTURE RESISTANCE

防止霉菌生长，并在潮湿环境中保护墙面
Prevents mold growth and protects walls in damp environments.

环境友好 ENVIRONMENTALLY FRIENDLY

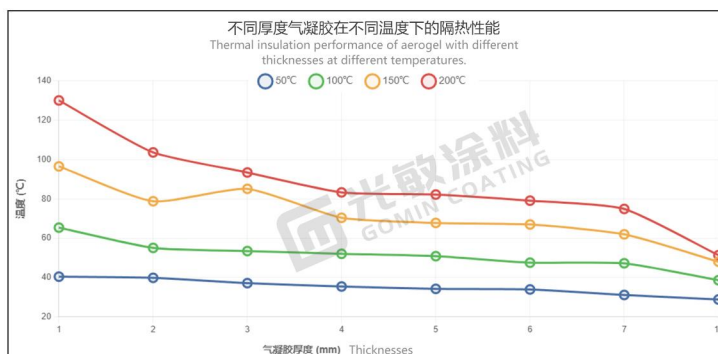
水性配方，无毒，对人体和环境安全
Water-based, non-toxic formula, safe for humans and environment.

强附着力 STRONG ADHESION

牢固地粘附在各种表面上，确保持久的耐用
Firmly bonds to various surfaces, ensuring long-lasting durability.

- Extremely low thermal conductivity (k-value) enables thinner designs for improved space efficiency
- Durable and flexible even at cryogenic temperatures
- Robust performance during construction, transport and operations makes it suitable for pre-insulation and modular builds
- Increased labor productivity and faster installation rates
- Proven in global LNG liquefaction and regasification facilities

GOMIN气凝胶参考数据 Gomin aerogel insulation reference data					
Thickness/Temperature	50℃	100℃	150℃	200℃	Remarks
1mm	40.5	65.4	96.5	130	Take the average of three random points for each group of data
2mm	39.9	55.1	78.8	103.6	
3mm	37.2	53.5	85.1	93.4	
4mm	35.5	52.1	70.4	83.3	
5mm	34.3	50.9	67.8	82.2	
6mm	34	47.6	67	79.1	
7mm	31.2	47.3	62	74.9	
11mm	28.9	38.7	48.1	51.4	
Ambient temperature: 28.5℃, humidity: 67%					
The above data are the test results of coating on smooth galvanized iron sheet substrates. There may be slight deviations in thickness. The actual usage scenario data shall prevail					



■ 测试数据 Performance Testing

检测项目 Test Item	单位 Unit	检测要求 Test Requirement	检测结果 Test Result	判定 Judgment
导热系数 Thermal Conductivity	W/(m·K)	≤0.065	0.029	合格 Pass
热阻值 Thermal Resistance	(m ² ·K)/W	≥0.3	0.45	合格 Pass
在容器中状态 Condition in Container	/	搅拌后无硬块，呈均匀状态 No hard lumps after stirring, uniform state	搅拌后无硬块，呈均匀状态 No hard lumps after stirring, uniform state	合格 Pass
耐碱性(48h) Alkali Resistance (48h)	/	无异常 No abnormalities	无异常 No abnormalities	合格 Pass
耐水性(48h) Water Resistance (48h)	/	无异常 No abnormalities	无异常 No abnormalities	合格 Pass
低温贮存稳定性 Low-Temperature Storage Stability	/	三次循环不变质 No deterioration after three cycles	三次循环不变质 No deterioration after three cycles	合格 Pass
吸水量 Water Absorption	g/10min	≤2.0	1.9	合格 Pass
涂膜柔韧性(直径50mm) Film Flexibility (50mm diameter)	/	无裂纹 No cracks	无裂纹 No cracks	合格 Pass
粘结强度(标准状态下) Bond Strength (under standard conditions)	MPa	≥0.6	0.7	合格 Pass
初期干燥抗裂性 (6h) Initial Drying Crack Resistance (6h)	/	单道施工厚度≤1.5mm的产品 1mm无裂纹 For products with single-layer application thickness ≤1.5mm, 1mm without cracks	1mm无裂纹 1mm without cracks	合格 Pass
VOC含量 VOC Content	g/L	≤100	0.5	合格 Pass
甲醛含量 Formaldehyde Content	mg/kg	≤50	未检出 Not detected	合格 Pass
苯系物总和含量(原苯、甲苯、二甲苯(含乙苯)) Total Content of Aromatic Hydrocarbons (benzene, toluene, xylene (including ethylbenzene))	mg/kg	≤100	未检出 Not detected	合格 Pass
烷基酚聚氧乙烯醚总和含量 Total Content of Alkylphenol Ethoxylates	mg/kg	≤1000	未检出 Not detected	合格 Pass
重金属含量(%) Heavy Metal Content (%)	GB/T 26125-2011 (检出限: 0.001%) (Detection limit: 0.001%)	汞 (Hg) Lead (Pb)	未检出 Not detected	合格 Pass
		六价铬 (Cr VI) Cadmium (Cd)	未检出 Not detected	合格 Pass
		汞 (Hg) Mercury (Hg)	未检出 Not detected	合格 Pass
		六价铬 (Cr VI) Hexavalent Chromium (Cr VI)	未检出 Not detected	合格 Pass

■ 施工说明 Construction Instructions

● 应用说明 Application Instructions

涂刷用量 Item	0.48 m ² /L(2mm厚) 0.48 m ² /L (2mm thickness)
稀释 Coverage	根据涂料状态，有5%的加水空间 Up to 5% water addition based on coating condition
推荐涂刷厚度 Dilution	2mm以上，涂刷2遍以上 Above 2mm, apply at least 2 coats
固化时间 Recommended Coating Thickness	8-24小时 8-24 hours
施工方式 Curing Time	滚涂，刷涂，喷涂，批刮 Rolling, brushing, spraying, troweling
使用温度 Application Methods	-45-200℃
包装规格 Operating Temperature	1L, 5L, 20L, 125L



● 注意事项 Precautions

- (1)本产品旨在仅由工业领域中的专业施工人员按照产品手册、材料安全数据手册和包装容器上所给定的建议进行施工。

(2)施工现场应远离火花，明火及其他火源，禁止吸烟。

(3)进行喷涂作业时，须穿戴防护面罩、手套等防护物品避免涂料接触皮肤或吸入粉尘。

(4)使用前需将涂料充分搅拌均匀，避免沉淀或分层。搅拌后若涂料过稠，可适量加入清水稀释，但加水量不宜超过涂料总量的5%。

(5)可采用滚筒、刷子或喷涂设备进行施工。涂刷时应均匀、无漏涂，建议分两遍施工，第一遍干燥后再涂第二遍，以确保涂层厚度和均匀性。

(6)施工现场应保持通风良好，避免长时间暴露在高浓度涂料环境中。
- (1) This product is intended to be applied only by professional construction personnel in industrial fields in accordance with the product manual, material safety data sheet, and recommendations provided on the packaging container.

(2) The construction site should be kept away from sparks, open flames, and other ignition sources. Smoking is strictly prohibited.

(3) When performing spraying operations, protective masks, gloves, and other protective equipment must be worn to avoid skin contact or inhalation of dust.

(4) Before use, the coating must be thoroughly stirred to avoid sedimentation or layering. If the coating is too thick after stirring, an appropriate amount of clean water can be added for dilution, but the amount of water added should not exceed 5% of the total coating volume.

(5) Application can be carried out using rollers, brushes, or spraying equipment. During application, ensure even coverage without missed spots. It is recommended to apply in two coats, allowing the first coat to dry before applying the second, to ensure coating thickness and uniformity.

(6) The construction site should be well-ventilated to avoid prolonged exposure to high concentrations of coating materials.

