

Product Name

产品名称

SMT-211 Two-component Silicone Structural Sealant

SMT-211 双组份硅酮结构胶

Description

描述

SMT 211 Two-component Silicone Structural Sealant is a neutral-curing elastic sealant with high modulus and excellent stability, formulated by mixing Component A and Component B. It delivers superior adhesion performance, and is applicable for high-safety structural bonding & sealing of high-rise and super high-rise curtain walls, large-size glass curtain walls, aluminum panel curtain walls, as well as glass curtain walls with complex structures. It can maintain stable compatibility and reliable long-term adhesion even under severe outdoor weather exposure.

This product is indicated for:

- Widely used for structural bonding of curtain walls and other construction industrial applications
- Structural bonding and sealing of large-size glass curtain walls
- Structural bonding and sealing of insulated glass units
- Bonding and sealing of glass curtain walls with complex structures

SMT 211 双组份硅酮结构胶是一种分 A,B 两组混合而成的高模量、高稳定性、中性固化的弹性密封胶。具有良好的粘接性，可用于各种高层及超高层幕墙、大尺寸玻璃幕墙、铝板幕墙和结构复杂玻璃幕墙等高安全性结构粘接密封。即使暴露在恶劣的天气下、可长期达到良好的相容性及粘接性。

本品适用于：

- 广泛应用于幕墙结构性粘接或者其他建筑工业用途
- 大尺寸玻璃幕墙结构粘接密封
- 中空玻璃的结构性粘接密封
- 复杂结构玻璃幕墙粘接密封

Properties

产品特点

- Two-component system with adjustable curing speed; fast deep-section curing and perfectly uniform internal crosslinking.
- Neutral curing formula, non-corrosive to metal, coated glass and other construction substrates.
- Free of pungent and unpleasant odors.
- Excellent adhesion to most glass and coated surfaces, primer-free application for most scenarios.
- Outstanding weathering resistance: resistant to aging, UV radiation, ozone and water.
- Superior high & low temperature resistance. After full curing, it will not turn brittle, harden or crack at -50°C, nor soften or degrade at 150°C, retaining stable strength and elasticity.
- Good compatibility with other neutral silicone sealants.
- 双组份，固化速度可调，深部固化快，内部固化十分均匀
- 中性固化，对金属、镀膜玻璃等建筑材料无腐蚀
- 无刺激性或难闻气味
- 具有优良的粘接性，对大部分玻璃及镀膜具有优良的粘接性，一般不需要使用底涂
- 优异的耐气候老化性能，耐老化、耐紫外线、耐臭氧、耐水
- 耐高低温性能卓越，固化后在-50°C不变脆、硬化或开裂，在 150°C不变软、降解，保持良好的强度和弹性
- 与其他中性硅酮胶具有良好的相容性

Applications

产品应用

Before application:

- Prior to application, compatibility tests between the sealant and contacting materials as well as adhesion tests on the substrates to be bonded shall be carried out.

Construction Method:

- Construction requires a dedicated two-component dispensing machine. Recommended mixing ratio by volume: A : B = 10 : 1.
- The surface of construction substrates for gluing must be clean and dry, free of all contaminants and residual old sealant.
- Remove excess sealant and smooth the surface with a cutter, dry cloth or squeegee before the pot life expires.
- The tack-free time is approximately 40 minutes under normal ambient conditions.
- Not suitable for application in damp or frosty environments.

施工前:

- 施工前应进行密封胶与所接触材料的相容性试验和与待粘结基材的粘结性试验。

施工方法:

- 需用专用的双组分打胶机施工，建议混合比例：A:B=10：1(体积比)；

- 施胶建材表面需清洁干燥、清除任何杂质或密封胶残渣；
- 在适用期之前用刀具、干布或者刮板刮去多余的胶，将胶表面抹平；
- 通常环境下拉断时间约为40分钟；
- 不适宜潮湿或霜冻环境施工。

Storage

存储要求

This product is non-hazardous. Store in cool and dry place below 10-27°C. Shelf life: 12 months. Use as soon as possible.

本产品属于非危险品，储存于温度在10-27℃的阴凉干燥处，有效期为12个月，建议尽早使用。备注：B组分应密封保存，暴露在空气中会导致其结皮或失效。

Note

注意事项

- Structural sealant past its shelf life shall not be used.
 - Not recommended for joint sealing with movement exceeding $\pm 30\%$.
 - Construction is not permitted when substrate surface temperature is below 5 °C or above 40 °C.
 - Do not apply on frosted or damp surfaces.
 - Unsuitable for areas under continuous water immersion or permanently humid locations.
 - Not compatible with substrates that bleed grease, plasticizers or solvents, such as oil-impregnated wood surfaces.
 - Avoid direct contact with rubber materials (e.g. rubber gaskets, rubber spacers) to prevent yellowing.
 - Avoid contact with acidic or alkaline substances (e.g. exterior wall cleaning agents) to discoloration risk.
 - The construction surface must be kept clean, dry and free of dirt.
 - Use within the product shelf life; expired material is forbidden for use.
 - Construction shall strictly follow the procedures specified in adhesion test.
 - Prevent direct contact with skin and eyes; do not ingest.
 - Keep out of reach of children. Store in a location inaccessible to minors.
 - Trace amounts of chemical substances will be released during curing. Adequate ventilation must be maintained at the working site. The fully cured sealant is non-toxic to human bodies.
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- 已过保质期的结构胶，禁止使用。
 - 不建议位移超过 $\pm 30\%$ 的接口密封。
 - 材料表面温度低于5℃或超过40℃时，不宜施工。
 - 不宜用于结霜或潮湿的表面。
 - 不宜用于连续浸水的地方或终年潮湿的地方。
 - 不宜用于所有会渗出油脂、增塑剂或溶剂的材料，如浸油木材的表面。
 - 应避免与橡胶类材料接触（如胶条、橡胶垫块等），以免发生黄变。
 - 应避免与酸性或碱性物质接触（如外墙清洗液），以免发生变色。
 - 施工表面必须保持清洁、干燥、无污垢。
 - 应在产品保质期内使用，过期产品不得使用。
 - 应严格按照粘结性试验的流程施工。
 - 避免皮肤和眼睛直接接触，请勿吞食。
 - 避免小孩接触。请放置于儿童接触不到的地方。
 - 产品在固化过程中会释放出微量化学物质，作业场所应保持充分的通风，固化后对人体无毒。

Shelf life & Instruction

使用寿命和说明

Shelf life: 12 months

保质期：12 个月

These instructions are only recommendations, which are based on our experience. We advise preliminary testing before use.

这些说明只是基于我们的经验的建议。我们建议在使用前进行初步测试。

Packaging Specification

包装规格

This product's Component A is white and packed in 190 L iron drums (net volume). Component B is black, supplied in 19 L plastic pails (net volume). The mixture after blending turns black.

本产品A组分为白色，190L铁桶包装（净容量），B组分为黑色，19 L 塑料桶包装（净容量），混合后为黑色。

Technical Data Sheet (Condition:23°C, 55%RH)

技术参数表（条件：23°C, 55%RH）

Test Items			Technical requirements	Typical Data	Test Method
Appearance			Free of bubbles, lumps, skinning or gelation. After stirring, it shall form a smooth and uniform paste or viscous body. For two-component products, there shall be an obvious color difference between the two components.	Free of bubbles, lumps, surface skinning or gel particles. It forms a smooth, homogeneous paste after stirring, and there is a distinct color difference between the two components.	GB 16776-2025 6.2
Density, g/cm ³	Component A		1.43±0.03	1.43	GB 16776-2025 6.5
	Component B		1.03±0.03	1.07	
Sag Resistance	vertical, mm		≤3	0	GB 16776-2025 6.6
	horizontal		No deformation	No deformation	
Tack-free time, h			≤3	1.8	GB/T 13477.5-2002
pot life, s			≤10	1.9	GB 16776-2025 6.9
Hardness, HA			20-60	54	GB 16776-2025 6.10
Tensile Adhesion	23℃	Tensile Adhesion Property, MPa	≥0.6	1.33	GB 16776-2025 6.11
		Tensile Modulus at 10% Elongation, MPa	≥0.15	0.39	

			Area of Adhesive Failure, %	≤5	0	
			Tensile Adhesion Property, MPa	≥0.45	1.04	
		90℃	Area of Adhesive Failure, %	≤5	0	
			Tensile Adhesion Property, MPa	≥0.45	1.88	
		-30℃	Area of Adhesive Failure, %	≤5	0	
			Tensile Adhesion Property, MPa	≥0.45	1.16	
		Exposure to Water and Ultraviolet Irradiation	Area of Adhesive Failure, %	≤10	2	
			Tensile Adhesion Property, MPa	≥0.45	1.16	
		Shear Property	Shear Strength, MPa	≥0.60	0.99	GB 16776-2025 6.12
			Area of Adhesive Failure, %	≤5	0	
		Thermal Aging	Thermogravimetry, %	≤6.0	1.9	GB 16776-2025 6.13
			Crazing	No	No	
			Chalking	No	No	
		Tensile Adhesion at Constant Elongation		No failure under 25% constant elongation	No failure	GB 16776-2025 6.14
		Alkane Plasticizer		Not detectable	Not detectable	GB 16776-2025

					6.15
检测项目			技术指标	典型数据	检测标准
外观			无气泡、结块、结皮或凝胶, 搅拌后应为细腻、均匀膏状物或粘稠体, 双组份产品两组分颜色应有明显区别	无气泡、结块、结皮或凝胶, 搅拌后为细腻、均匀膏状物, 两组分的颜色有明显区别	GB 16776-2025 6.2
密度, g/cm ³	A 组分		1.43±0.03	1.43	GB 16776-2025 6.5
	B 组分		1.03±0.03	1.07	
下垂度	垂直, mm		≤3	0	GB 16776-2025 6.6
	水平		无变形	无变形	
表干时间, h			≤3	1.8	GB/T 13477.5-2002
适用期, s			≤10	1.9	GB 16776-2025 6.9
邵氏硬度, HA			20-60	54	GB 16776-2025 6.10
拉伸粘结性	23℃	拉伸粘结强度, MPa	≥0.6	1.33	GB 16776-2025 6.11
		伸长率为10%时的拉伸模量, MPa	≥0.15	0.39	
		粘结破坏面积, %	≤5	0	
	90℃	拉伸粘结强度, MPa	≥0.45	1.04	
		粘结破坏面积, %	≤5	0	
	-30℃	拉伸粘结强度, MPa	≥0.45	1.88	
		粘结破坏面积, %	≤5	0	
	水-紫外线光照	拉伸粘结强度, MPa	≥0.45	1.16	
		粘结破坏面积, %	≤10	2	

		积，%			
剪切性能	剪切强度，MPa		≥0.60	0.99	GB 16776-2025
	粘结破坏面积，%		≤5	0	6.12
热老化	热失重，%		≤6.0	1.9	GB 16776-2025
	龟裂		无	无	6.13
	粉化		无	无	
定伸粘结性			定伸 25%，无破坏	无破坏	GB 16776-2025 6.14
烷烃增塑剂			不应检出	未检出	GB 16776-2025 6.15