聚氨酯防水涂料

SD-911

GRAPHENE POLYURETHANE WATERPROOF COATING

SEED

PRODUCT INTRODUCTION

Graphene polyurethane waterproof coating is primarily composed of diisocyanate, polyether polyol, and modifiers as the main raw materials, combined with various functional additives, pigments, and fillers, processed through special reaction polymerization.

PRODUCT SPECIFICATIONS

Specification	25kg/bucket
Color	Black

THE SCOPE OF APPLICATION

● Applicable to underground engineering (including building basements, underground parking lots, open-cut metro tunnels and passages, utility tunnels), floors, bathrooms, as well as non-exposed waterproofing and anti-seepage projects such as pools and balconies.
(Note: This product is not recommended for vertical or inclined surface construction. If construction is required in these areas, please choose sag-resistant products. It should not be directly applied to drinking water pipes or domestic water supply equipment.)

REFER TO DOSAGE

●Coating thickness 1.0mm, recommended application rate 1.6kg/m2-1.8kg/m2
(Note: This data is calculated under standard laboratory conditions and is for reference only. Actual consumption should be calculated based on on-site substrate conditions.)

PRODUCT FEATURES

● The film is dense: Through production process control and the addition of special functional additives, the product exhibits excellent dispersion and defoaming effects. During application, the film is less prone to pinholes or bubbles, resulting in overall high density.
● Short surface drying time: The national standard requires surface drying time under standard conditions to be ≤12 hours, while the actual surface drying time is 2-4 hours.
● Outstanding mechanical properties: The film demonstrates high tensile strength, excellent elongation and good elasticity, effectively resisting substrate expansion and cracking deformation.
● Double anti-seepage effect: The unique barrier effect of graphene enhances film density and prolongs the water penetration path, enabling the film to achieve impermeability under 0.6MPa pressure—twice the water pressure resistance of ordinary polyurethane waterproof coatings, delivering double the anti-seepage capability.
● Superior environmental performance: Complies with the requirements of JC1066-2008 "Limit of Harmful Substances in Building Waterproof Coatings"and contains no coal tar component

TRANSPORTATION AND STORAGE

● During storage and transportation, products of different classifications should be stacked separately. Keep away from fire sources, avoid direct sunlight and rain, prevent collisions, and ensure proper ventilation. The storage temperature should be maintained between 5℃ and 40℃.

● Under normal storage and transportation conditions, the shelf life is at least 6 months from the date of production.

POINTS FOR ATTENTION

● The hazardous substance content of this product meets the requirements of National Standard Class B. If local standards have higher requirements, please select the appropriate product according to the actual standards;

● During the coating application process and after completion, direct contact with water pipes should be avoided.

CONSTRUCTION TECHNOLOGY

● Construction Steps: Preparation before construction → Base surface treatment → Detail and joint treatment → Large-area construction (scraping, rolling or spraying to achieve design thickness) → Self-inspection → Organization of acceptance.

● Construction Methods: Scraping, rolling, spraying. Key

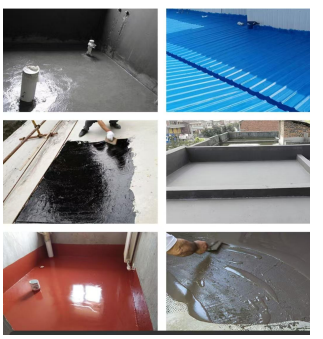
● Construction Points:

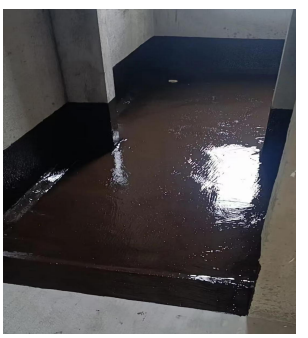
● The base surface should be firm, clean, and level, free from defects such as oil stains, cracks, voids, hollowing, looseness, sanding, or peeling.

● Internal and external corners should be rounded or obtuse. Additional coating layers (reinforced with non-woven fabric, using a one-fabric-three-coat method) should be added at corners and pipe roots, with a width of no less than 250mm on both horizontal and vertical surfaces.

● The coating should be applied in multiple thin layers, preferably in 2–3 passes. The application direction of each layer should be perpendicular to the previous one. The first layer should be thin to seal the pores of the base surface.

● The next layer should only be applied after the previous one has fully cured. If reinforcing fabric is required, it should be laid while applying the coating. During subsequent construction steps, care must be taken to avoid damaging the waterproof coating with hard objects, as this may compromise the overall waterproofing effect. If damage occurs, notify the waterproofing personnel for repairs before proceeding.





Implementation standard: GB/T 19250-2013 "Polyurethane Waterproof Coating"

Number	Project		Technical indicators
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1	Solid content/%≥	One-component	85
2	Surface drying time/h ≤		12
3	Hard drying time/h ≤		24
4	Levelling		After20min ,there are nobvious tooth
5	Tensile strength/MPa ≥		2.00
6	Elongation at break/% ≥		500
7	Tear strength/(N/mm) ≥		15
8	Low-temperature Flexibility		-35℃, No crack
9	Waterproofness test		0.6MPa, 120min, Watertight
10	Thermal Expansion Rate/%		-4.0~+1.0
11	Bonding strength/MPa ≥		1.0
12	Water absorption/% ≤		5.0
13	Aging test at constant elongation	Thermal aging	No cracks or deformations
14	Heat treatment(80℃, 168h)	Tensile strength retention rate/%	80~150
		Elongation at break/% ≥	450
		Low-temperature flexibility	-30℃, No crack
15	Alkali treatment[0.1%NaOH+$Ca(OH)_2$ solution, 168h]	Tensile strength retention/%	80~150
		Elongation at break/% ≥	450
		Low-temperature flexibility	-30℃, No crack
16	Acid treatment(2%H_2SO_4 solution, 168h)	Tensile strength retention/%	80~150
		Elongation at break/% ≥	450
		Low-temperature flexibility	-30℃, No crack