



Aspartame Polyurea Coating

Asparagus polyurea waterproofing 5.0 era

Provides environmentally friendly, energy-saving,
and long-life coating solution provider

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Company Profile

Bayide Chemical Co., Ltd. was founded in 2015 and is headquartered in Guangdong Province, China. Since its establishment, the company has been specialized in the production and R&D of high-quality coatings all over the world. The core mission of the company is to create unlimited benefits for employees, society and investors through continuous innovation.

Corporate Vision

BAYD Chemical pursues the highest cost-effectiveness and high-quality products, aiming to create unlimited value for employees, society and investors. With excellent products, excellent culture, excellent customer relations and excellent collaborative teams, we are committed to becoming a global outstanding chemical company.

Continuous innovation capability

We always pay attention to the latest industry trends, actively innovate, and provide cutting-edge solutions. We encourage innovative thinking and bring unique value to customers.

Sustained cost-effectiveness

Our services are reasonably priced and cost-effective, and we are able to provide our customers with long-term cost savings and value enhancement.

Professional skills and experiments

We have deep expertise and rich practical experience in related fields. Our team is composed of industry experts who can provide high-quality solutions.



Expert introduction

Wu Jianhua

Professor/Marine corrosion protection expert

Professor Wu Jianhua, the leader of our company's technical team, is committed to the research of the fourth-generation polyurea-fluorosilicone modified aliphatic polyurea and its multifunctional intelligent coating. He leads the team to tackle the corrosion protection problems in the current extremely harsh environments such as petroleum and petrochemical, marine environment, and aerospace. We strive to build our company into a strategic research and development highland and important production base for the fourth-generation polyurea in China.



Professor/doctoral supervisor
Marine corrosion protection expert
Chief scientist of National Defense 973 and National Science and Technology Support Program
Vice President of China Corrosion and Protection Society

Zhang Yuying

Professor-level senior engineer/Asparagine polyurea coating expert

Since the beginning of 2009, he has been committed to the research of polyaspartic acid ester polyurea (aspartic polyurea) coatings. He is the chief expert in the systematic research of polyaspartic acid ester polyurea polymer materials in China. He has been specializing in the research of aspartic polyurea for more than ten years and has accumulated extremely rich experience in this field. The products developed by him once occupied more than 70% of the market share of polyurea waterproof topcoat for Beijing-Shanghai High-speed Railway. He led the team to overcome many technical difficulties in the research and development of two-component brush-coated polyurea, and his technical level is at the advanced level both at home and abroad.



Part-time postgraduate tutor at Jinan University
Part-time postgraduate tutor at Jimei University
Part-time academic leader at Dalian University of Technology
Member of the Paint and Coating Professional Committee of the Chinese Society for Corrosion and Protection

The development history of polyurea

First generation polyurea Polyurethane urea (1980S)

Solvent-free, fast curing, mechanical construction; high strength, high elasticity; but easy to yellow.

Second generation polyurea Pure polyurea

Solvent-free, fast curing, mechanical construction; high elasticity, high strength, easy to yellow, and relatively expensive.

Third generation polyurea - "Aspartic polyurea" Polyaspartic acid ester polyurea coating

Waterproof, floor, anti-corrosion coating

No solvent or ultra-high solids, slow drying, manual construction;
High strength, high elasticity, no yellowing

Fourth generation polyurea Fluorosilicone modified asparagine polyurea multifunctional coating

Long life protective coating, self-cleaning coating

- Super UV resistance
- Self-cleaning and anti-fouling (water contact angle > 105°)
- Super wear resistance
- Water immersion resistance
- 0-5°C low temperature construction

POLYASPARTIC POLYUREA WATERPROOF 5.0 ERA

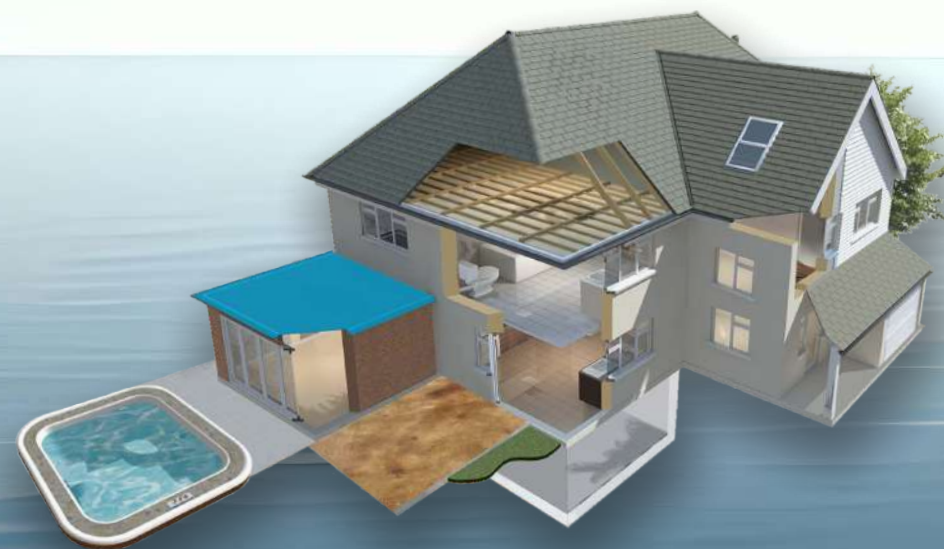


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Aspartame polyurea kitchen and bathroom waterproof products

Background

Kitchens and bathrooms are key areas for household waterproofing. They consume a lot of water and are prone to water accumulation. If waterproofing is not done properly, the family will be in a humid environment for a long time, causing wall leakage and mold, which is not conducive to family safety and health. Once a leak occurs, it will cost a lot of manpower, material resources and time to rework, which will bring many inconveniences to the normal life of the family. Tiandong polyurea kitchen and bathroom waterproof products provide an effective solution to the waterproofing problem of kitchens and bathrooms. It has excellent waterproof performance, convenient and fast construction, green and environmentally friendly, safe and non-slip, and long-term guarantee of a comfortable, healthy and safe family living environment.

Features

- ① Convenient construction, fast curing, no need to smash bricks
- ② Visual waterproofing, excellent waterproof performance
- ③ Environmentally friendly and non-toxic, safe and healthy

Scope of application

- ☑ Repair of leaks on various bathroom walls and floors without destroying the original wall and floor tiles;
- ☑ Protective layers for various waterproof and coating surfaces;
- ☑ Waterproof and moisture-proofing of surfaces and joints of various decorative materials.

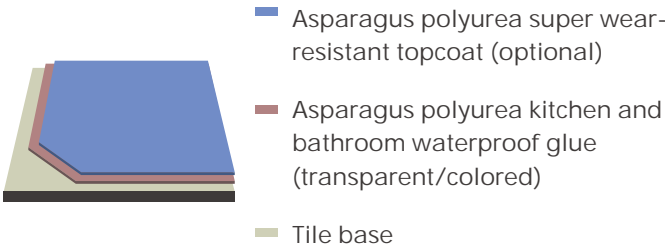
Technical indicators

Product implementation standards:Q/FY13-2022

Color	Colorless and transparent	UV resistant	After 1500h, the coating has no cracking, cracking, discoloration or shedding.
Elongation	≥100%		
Adhesion	≥8MPa (ceramic tile)	Solid content(%)	≥99%
Tensile Strength	≥10MPa	Construction period	20 minutes (25°)
Low temperature bendability	No cracks (-20°C°C)	Surface drying time	3h
Wear resistance	≤25(750g/500r,mg)	Actual drying time	10h
Hardness	≥50D	Coating interval	10h-12h

Painting diagram

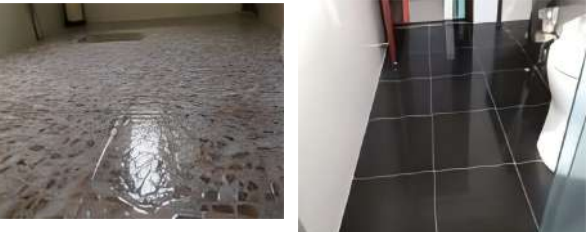
Tile base



Construction technology

- ① For the tile base surface, use rags or gauze to repeatedly and vigorously polish the talcum powder or white cement on the base surface to remove the base surface polishing wax and oil stains, and clean the dust generated during polishing;
- ② Use asparagus polyurea grout or leak-proof sealant to fill the gaps between tiles;
- ③ The cleaned base surface must be kept dry before construction can be carried out;
- ④ Mix component A and component B of asparagus polyurea waterproof adhesive by weight, mix them evenly, and then use a brush to apply to the tile gaps and corners, and then apply waterproofing to the facade. The brushing height is about 60 cm, and the reference dosage is 0.1kg/m² (thickness is 0.1mm). After the facade is painted, apply to the flat surface, and the reference dosage is 0.3kg/m² (thickness is 0.3mm). At the same time, in order to prevent slipping, anti-slip granular powder should be used together with the flat surface.
- ⑤ Use a short flat hair roller to roll on the aspartame polyurea super wear-resistant topcoat varnish (1 coat). Be careful to avoid roller marks when rolling, and use horizontal laying and vertical pulling (0.1kg/m²);
- ⑥ After construction, keep ventilation and it can be used normally after 6-8 hours.

Effects





Aspartame polyurea exterior wall /balcony waterproofing products

Background

Building exterior walls and balconies are exposed to the outdoor environment all year round. If they are not properly waterproofed, they will be eroded by ultraviolet rays, rain, wind and other factors for a long time, which will cause wall cracks, water leakage, mold and other problems, seriously affecting the service life and safety of the building. Asparagus polyurea exterior wall transparent waterproof coating can effectively solve the problem of exterior wall and balcony waterproofing. It has excellent weather resistance and waterproof performance, is convenient and fast to construct and repair, and is safe and environmentally friendly, providing long-term and stable guarantee for people to enjoy a comfortable and safe living environment.

Features

- ⦿ Excellent weather resistance
- ⦿ Anti-cracking, overall wrapping, anti-tile shedding
- ⦿ Anti-corrosion and mildew-proof, scrub-resistant, dirt-resistant
- ⦿ Green and environmentally friendly, high safety performance

Scope of application

- ☑ Waterproof repair of external wall leakage of various buildings;
- ☑ Waterproof treatment of interfaces of various finishing materials;
- ☑ Waterproof and moisture-proof of the surface of external wall decoration materials.

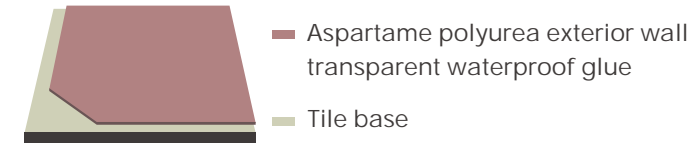
Technical indicators

Product implementation standards:Q/FY13-2022

Color	Colorless and transparent	UV resistant	1500h without powdering, cracking or falling off
Zhongchang rate	≥100%		
Adhesion	≥ 8MPa (ceramic tile)	Solid content(%)	≥ 80%
Tensile Strength	≥10MPa	Construction period	0.4- 1h (25℃)
Low temperature bendability	No cracks (-20℃)	Surface drying time	1-3h
Hardness	≥ 85A	Actual drying time	8h-12h
Tear Strength	≥60N/mm	Coating interval	10h-12h

Painting diagram

Tile base



Construction technology

Exterior wall construction

- 1 Use a detergent, wire brush, and rag to clean the base of the wall without damaging the original surface gloss;
- 2 Mix and stir evenly according to the strict proportion. First, apply the asparagus polyurea external wall transparent elastic waterproof glue to the joints of the facing tiles. In order to achieve the effect of sealing and reinforcing the base surface, each layer must be applied according to the specified amount. It should not be too thick or too thin. Roll and apply backwards. Be particularly careful when applying. Generally, 2-3 times of application are sufficient (reference amount 0.2-0.3kg/m²). When applying, pay attention to the previous layer of coating being dry and not sticky before applying the next layer. The application direction should be crisscrossed and the construction must be completed within 30 minutes.
- 3 After construction is completed, keep the area ventilated and it can be used normally after drying.

Balcony construction

- 1 Use sandpaper or special treatment agent to polish the door frame, window frame and wall surface to remove dust, laitance, rust and other foreign matter. The treated area must be kept clean, dry and dense;

- 2 Mix component A and component B of Tiandong Jufu's transparent elastic waterproof adhesive for exterior walls in a weight ratio of 1:1;
- 3 For balcony painting, first paint the gaps, then paint the entire large area, and also paint the grooves of the water pipes in the wall. The reference dosage is 0.2-0.3kg/m² (thickness is 0.2mm);
- 4 After construction is completed, keep ventilation and it can be used normally after 12 hours.

Effects





Aspartame polyurea roof waterproofing products

Background

Roof waterproofing is one of the most important projects in house construction. The roof is exposed to the external environment for a long time and is affected by various external factors such as climate. Improper waterproofing will cause roof leakage, wall cracking, and mold, which will not only affect people's health and normal life, but also directly affect the service life of the building. Tiandong polyurea roof waterproofing coating has excellent waterproof, heat insulation, and weather resistance. It also has a good decorative effect. It will not change color or crack after long-term outdoor exposure, solving the worries of roof waterproofing repair.

Features

- ⦿ Excellent weather resistance, outdoor service life of more than 20 years
- ⦿ Seamless overall, waterproof, anti-corrosion, and decorative integration
- ⦿ Safe and environmentally friendly, efficient and convenient construction

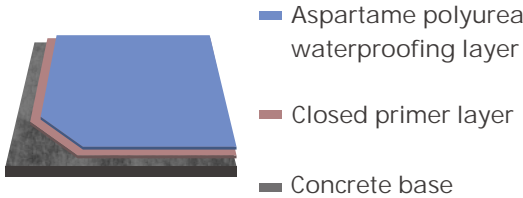
Scope of application

- ☑ Waterproof repair of small roofs and walls of various buildings;
- ☑ Applied to waterproof treatment of various finishing materials.

Technical indicators

Color	Gray/Blue/White	UV resistant	1500h without powdering, cracking or falling off
Elongation	≥350%		
Adhesion	≥4MPa (Concrete base)	Solid content(%)	95±2%
Tensile Strength	≥10MPa	Construction period	0.4-1h (25℃)
Low temperature bendability	No cracks (-35℃)	Surface drying time	2-4h
Abrasion resistance	≤30 (750g/500r .mg)	Actual drying time	10h-12h
Hardness	≥80A	Coating interval	10h-24h
Tear strength	≥40N/mm		

Painting diagram



Construction technology

- 1 Pre-treat, polish, and clean the concrete base surface, clean up depressions, cavities, floating sand, etc., and the concrete base must be dry;
- 2 Roll on the sealing primer, wait for 6-8 hours, and then apply the next step;
- 3 Apply Tiandong Polymai elastic waterproof material, roller coating/batch scraping construction, material consumption 0.6mm (0.8kg);

Metal Roofing

- 1 Metal surface pretreatment: clean the surface dust, floating rust, oil stains, etc. of the substrate;
- 2 Grinding of metal base surface requires that the original coating on the surface of the base material without rust is polished and roughened, and the rest of the rusted parts are polished to the metal base material. Sharp corners also need to be polished to a rounded and flat shape. Grinding grade: sa2;
- 3 Apply primer, and all the places that are difficult to spray, such as seams, angles, corners, edges, backs, etc., which are difficult or impossible to apply thickness, are all pre-painted by manual brushing. The whole is painted without leaking, sagging, shrinkage, etc., and the next process can be carried out after 8-12 hours;
- 4 Apply mid-coat + patch + mid-coat to the overlapped parts, anchorage parts and rusted holes of the metal roofing metal substrate, and then apply the next process after 6-8 hours;
- 5 When applying the topcoat, there should be no leakage, sagging, shrinkage holes, etc.

Concrete roof

- 1 Pre-treatment, grinding, dust removal and cleaning of concrete base surface, cleaning of depressions, cavities, floating sand, etc.;

- 2 Concrete base surface grinding requires grinding until the solid base surface is flat, solid, and without holes, and the concrete base must be dry; expansion joints and crack surfaces are V-shaped chamfered, with a V-shaped groove width of 1-2cm and a depth of 1cm;
- 3 Bury the exhaust pipes, the interval is 6*6m, the pipe diameter is 6-8cm, use an electric drill to drill holes, the hole size is about 0.5cm larger than the exhaust pipe diameter, the drilling depth reaches the roof insulation layer, and then the exhaust pipe is fixed with 8530material;
- 4 Apply Tiandong Polymai epoxy penetrating primer. All the parts that are difficult to spray, such as the gaps, corners, edges, backs, etc., which are difficult or impossible to apply thickness, are all pre-coated. The whole part is painted without leaking the bottom, and then rolled or scraped. The next step is applied after 8-12 hours.
- 5 The shrinkage joints and cracks are filled. The filling material should be level with the concrete base surface and should not exceed the base surface. All expansion joints and cracks with a width of more than 2 cm should be patched. Apply mid-coat + patch + mid-coat (is it feasible)
- 6 Epoxy mortar layer; material dosage 0.4mm, add 70-100 mesh quartz sand, sand adding ratio 1:1-1.5, after 8-12 hours, the next process is constructed;
- 7 Apply the mortar layer and do the internal corner treatment at the same time: make the internal corner into an arc, and decide whether to use the patch treatment depending on the site conditions;
- 8 Apply Tiandong Polymer Elastic Waterproof Middle Coat, apply by scraping, the material usage is 1mm (1.2kg), and apply the next process after 6-8 hours;
- 9 Apply 0.2kg (0.15mm) of Tiandong Polymai weather-resistant elastic waterproof surface coating, roller or spray.

Effects





Aspartame polyurea Caustic water-proofing products

Background

Now many bathrooms in southern houses have caisson structures: the caisson is located under the bathroom floor to help drainage and prevent water seepage. If it is not properly waterproofed, long-term moisture penetration will cause mold inside the caisson, pollute the environment, and even affect the use of the downstairs. Therefore, the waterproofing of the bathroom caisson is very important.

Tiandong polyurea caisson waterproofing products have excellent waterproof performance and durability. They can form a solid and waterproof protective layer on the surface of the caisson to resist moisture, dirt and chemical erosion inside the caisson, and maintain the waterproof stability and comfort of the bathroom for a long time.

Features

- ⦿ High durability, long-lasting waterproofing
- ⦿ Safe and environmentally friendly;
- ⦿ Quick curing, easy construction

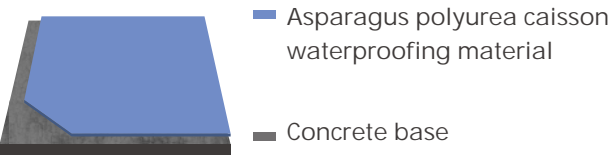
Technical indicators

Color	Gray/Blue/ White	Tear Strength	≥40N/mm
Elongation	≥350%	Solid content(%)	95±2%
Adhesion	≥4MPa (Concrete base)	Construction period	0.4-1h (25°C)
Tensile Strength	≥10MPa	Surface drying time	2-4h
Low temperature bendability	No cracks (- 35°C)	Actual drying time	10h-12h
Abrasion resistance	≤30(750g/500r. mg)	Coating interval	10h-24h
Hardness	≥80A		

Scope of application

- ☑ Caisson waterproofing

Painting diagram



Construction technology

- 1 Pre-treatment of the base surface, dust removal and cleaning, cleaning of the injection pool, cavities and floating sand;
- 2 Apply asparagus polyurea elastic waterproof coating (1.5mm), mix and stir evenly according to the proportion, then apply with a roller, apply multiple times to ensure that the coating thickness meets the requirements. When applying, pay attention to the uniformity, fullness, and no missing of the coating, and complete the construction within the required time;
- 3 Water-tightness test: 3 days after the waterproof coating is applied, a water-tightness test is conducted , that is, a certain amount of water is injected into the caisson to observe the tightness and water leakage of the waterproof coating. Generally, a water-tightness test of more than 12 hours is required to ensure that the waterproof effect meets the requirements.

Effects



Shipping and packaging

1. Avoid squeezing when packaging this product and keep the packaging intact;
2. The product should be stored in a cool, ventilated and dry place. The storage temperature should be 0°C-30°C.
3. Under normal transportation and storage conditions, the shelf life of unopened products is 1 year;

Precautions

1. The weight ratio of components A and B of the product must be accurate and must be mixed and proportioned strictly in accordance with the mass ratio standard;
2. No personnel are allowed to enter within 48 hours after the construction is completed, and the next process can only be carried out after the closed water test is qualified;
3. The mixed and stirred paint must be uniform and no local deposition is allowed;
4. The base surface must be dry and dust-free before construction;
5. Keep the construction environment ventilated to avoid contact between the product and the skin and eyes. If contact occurs accidentally, rinse it in time. If it comes into contact with the eyes, rinse with plenty of water and seek medical attention immediately



Aspartame polyurea transparent waterproof glue for swimming pool

Background

Traditional swimming pools are usually decorated with mosaic tiles. If they are not waterproofed, they will not only fall off easily and seep water, but also breed bacteria after a long time of use, which will cause safety hazards and affect the overall appearance. Tiandong polyurea swimming pool transparent waterproof glue is a polymer environmentally friendly material. It is not only waterproof and anti-seepage, but also can wrap the tiles as a whole without affecting the effect of the tiles, increasing the anti-slip and wear resistance and service life of the swimming pool, and ensuring the long-term safety of the swimming pool.

Features

- Overall wrapping, prevent tiles from falling off, elastic and anti-cracking
- Excellent waterproof, anti-corrosion and weather-resistant performance
- No discoloration after long-term use
- Safe and environmentally friendly, anti-slip and wear-resistant

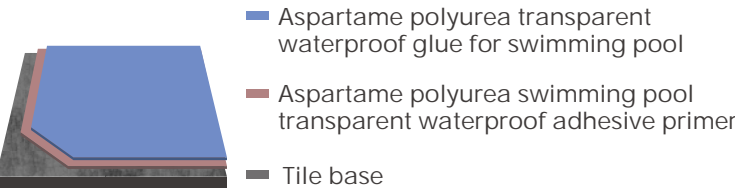
Scope of application

- Suitable for waterproofing of various mosaic pools, fish ponds, landscape pools, etc.

Technical indicators

Color	Transparent	Solid content(%)	60-78%
Adhesion	≥4 MPa (ceramic tiles)	Construction period	0.4-1h (25℃)
Abrasion resistance	≤20(750g/500r, mg)	Surface drying time	1-2h
Hardness	2H	Actual drying time	10h
UV resistance	No discoloration, blistering or shedding for 1500h	Coating interval	10h-48h
Acid and alkali resistance	No discoloration, blistering or shedding for 1500h	Coating interval	Dry film: 100-150um Wet film: 140-210μm

Painting diagram



Construction technology

- Use a detergent, wire brush, and rag to clean the base of the tile wall as much as possible, but try not to damage the original surface gloss;
- Use asparagus polyurea transparent waterproof glue to fill the gaps on the surface of the tiles;
- Apply the asparagus polyurea transparent primer to the joints of the facing tiles. Generally, it is sufficient to apply it twice. When applying, pay attention to the fact that the previous coating is dry and not sticky before applying the next one. The brushing direction should be crisscrossed. The construction must be completed within 30 minutes. The reference dosage is 0.2-0.3kg/m²;
- Apply the asparagus polyurea transparent primer to the joints of the facing tiles. It must be mixed and stirred evenly according to the strict ratio. In order to achieve the effect of sealing and reinforcing the base surface, each layer must be applied according to the specified amount. It must not be too thick or too thin. Roll and apply backwards. Be particularly careful. Generally, 3 coats are enough. When applying, pay attention to the previous coat being dry and not sticky before applying the next coat. The brushing direction should be crisscrossed. The construction must be completed within 30 minutes. Amount 0.6kg/m²
- After construction is completed, keep the area ventilated and it can be used normally after drying.

Effects





Water Park/Theme Park Polyurea Waterproofing Products

Background

Various facilities in water parks, such as swimming pools, wave pools, water slides, and lazy rivers, are filled with water for a long time, and the requirements for waterproof performance are extremely high. Traditional waterproofing methods such as tiles and coils may fall off, crack, leak, etc. when soaked in water for a long time, and cannot meet the waterproofing needs of water parks. Polyurea waterproof coatings can form a continuous, dense, seamless waterproof layer, which can effectively prevent water leakage and ensure the normal operation of water parks. Complex structures and shapes: The facilities in water parks have various shapes and complex structures, and there are many special parts such as corners, curved surfaces, and facades. Polyurea waterproof coatings can be sprayed on any curved, inclined, and vertical surfaces.

Features

- ⦿ High strength and high wear resistance
- ⦿ Good flexibility and elongation
- ⦿ Excellent chemical stability
- ⦿ Quick curing and high construction efficiency
- ⦿ Environmentally friendly and pollution-free

Scope of application

- ☑ Recommended for water parks, theme parks, basements, kitchens and bathrooms, and roof waterproofing.

Technical indicators

Hardness	50	Solid content(%)	70%
Adhesion	Level 1	Construction period	1-2h
Wear resistance	≤0.04G	Surface drying time	0.5h
Water resistance	No abnormality	Actual s drying time	24h
organochlorine Resistant to tap water	No abnormality	Coating interval	1h
Acid resistance 240H	No corrosion	Recommended dry film thickness	100-150μM
Alkali resistance 240H	No foaming	Theoretical coating rate	0.2KG/M2
UV resistant	No shedding	Coating method	Brush, roller, airless spray, air spray

Construction technology

- ① Construction process: cutting V-shaped joints--grinding the base surface--priming--caulking--scraping polyurea elastic mortar layer--scraping polyurea elastic middle coating--local repair--rolling anti-chlorine anti-skid topcoat layer--rolling transparent anti-skid topcoat layer

Effects



- ② Construction method

(1) Base surface treatment

A. Cut V-shaped joints. Cut expansion joints with a size no larger than 6x6M per square. Expansion joint width x depth = 6x20mm.

B. Grinding and cleaning the base surface: Use a grinder to grind and smooth the rough and raised parts of the base surface and clean the site.

C. Filling: First clean the expansion joints. If the joints are deep or wide, use rubber particles or foam as a base, and then fill them with polyurea elastic midcoat. For particularly concave parts, elastic materials and sand can be used for repair.

D. Primer: After the base is dry enough, apply the special primer EP-9302 high penetration primer by brushing, and roll it on the base surface in two coats.

(2) Construction of polyurea elastic intermediate layer

Mix components A and B of polyurea elastic intermediate paint in proportion and use them up within 30 minutes. Use a toothed trowel or scraper to apply the paint on the base surface. The thickness of each layer should not exceed 1mm. Apply the second layer 3-6 hours after the surface is dry, and so on until the required thickness is reached. Pay attention to the leveling effect when applying to ensure a smooth surface. You can use PUA-107 to make a polyurea mortar layer, and then make a PUA-100/PUA-109 intermediate coating.

(3) Construction of the surface layer: Mix components A and B of the topcoat FSPUA-3081 in a ratio of 2:1 and apply them on the intermediate layer with a roller or spray gun.

(4) Applying the anti-slip topcoat layer: The floor that needs to be treated with anti-slip treatment must be coated with an anti-slip layer, such as an amusement park . Mix the A and B components of the anti-slip topcoat thoroughly and evenly in the prescribed proportion, and apply them on the surface in separate passes using a roller or spray gun.





Wind power generation/offshore platform polyurea anticorrosion products

Background

As a clean and renewable energy source, wind energy has developed rapidly around the world. my country is rich in wind resources , and the wind power industry has developed rapidly in recent years. With the increasing construction of wind farms, the performance and life requirements of wind power equipment are getting higher and higher. Wind turbine blades, towers and other components are exposed to the natural environment for a long time, and they need to have good anti-corrosion, wear resistance, impact resistance and other properties to ensure the normal operation and long-term use of wind turbines.

The operating environment of marine engineering equipment is extremely harsh. Sun exposure, salt spray, wave impact complex seawater system, environmental temperature and humidity changes, and marine biological erosion make the corrosion rate of marine engineering equipment faster. Offshore anti-corrosion platforms are in the marine environment for a long time, and steel structures are easily corroded by seawater. Effective anti-corrosion measures need to be taken to extend the service life of the platform . Type, no sagging phenomenon, has good construction and waterproof effects on various complex structures and shapes.

Technical indicators

Adhesion	Level 1	luster	Highlight
Impact strength	≥50kg.cm	Image clarity	0.8
Hardness	1H	Solid content(%)	95-100%
Flexibility	≤1mm	Density coating	1.1-1.25g/cm3
Abrasion resistance (750g/500r)	≤0.03g	Recommended dry film thickness (topcoat)	50-150um
Acid resistance: 240h (5% H504 solution)	No corrosion, no blistering, no shedding	Theoretical coating rate	0.15kg/m² (Calculated based on dry film 100μm)
Alkali resistance 240h (5% NaOH solution)	No corrosion, no blistering, no shedding	Construction period	90-120min
Salt resistance 240h (3% NaCl solution)	No corrosion, no blistering, no shedding	Surface drying time	1-2h
Oil resistance 240h	No corrosion, no blistering, no shedding	Actual drying time	24h(25℃) , 10min(130-150℃)
Water resistance 30d	No corrosion, no blistering, no shedding	Coating interval	6-48H
Salt spray resistant	≥1500H	Coating method	Brush, roller, airless spray, air spray
UV resistance (UVA340nm)	≥ 00H	Color	Color

Features

- ⦿ The product does not contain any solvents, and the solid content is close to 100%
- ⦿ High gloss and high decorative properties, image clarity ≥0.8
- ⦿ Zero VOC or extremely low VOC emissions, environmentally friendly and energy-saving
- ⦿ Extremely long UV resistance (QUV resistance up to 4000h)
- ⦿ UV resistance comparable to fluorocarbon coatings

Scope of application

- ☑ Industrial protective paint field: recommended for the protection of automobiles, ships, engineering machinery, military equipment, oil storage tanks, wind power towers, offshore platforms, bridges, hydraulic structures and outdoor steel structures.

Construction technology

- 🔧 Metal substrate sandblasting 2.5 level - epoxy primer (50-80um) - epoxy micaceous iron mid-coat 100-150um - polyurea anti-corrosion topcoat (50-150um).

Effects





Polyurea spray products for bridges, tunnels and sewage pools

Background

The polyurea elastomer coating for bridges, tunnels and sewage pools is composed of isocyanate compounds as component A and amine compounds as component B. The two components are mixed and reacted using special high-pressure spraying equipment to form an elastomer waterproof coating. It is mainly used in construction projects, infrastructure projects and other fields. The product is quick to apply and can be cured into a film instantly: it has high hardness, high wear resistance, high scratch resistance, and at the same time has super tensile strength, excellent ductility and good corrosion resistance to various chemical media. It is an ideal waterproof, anti-corrosion and protective coating.

Scope of application

- ✓ Industrial protective paint field: used for waterproofing of railway concrete pavement, waterproofing of roofs and basements of buildings, thermal insulation and waterproofing of various factories and warehouses, waterproofing of bridges, tunnels and underground projects, lining waterproofing of aquariums and swimming pools, etc.

Features

- ⊙ Solvent-free, non-volatile, pollution-free, high-solid, environmentally friendly, new high-tech product;
- ⊙ Ultra-fast curing, so it can be sprayed continuously on any curved surface, vertical surface and top surface without sagging. The design thickness requirement can be achieved in one construction, which greatly shortens the construction period.
- ⊙ Super strong adhesion, excellent adhesion on steel, aluminum, concrete, wood and other substrates, no seams, no bubbles and cracks
- ⊙ Excellent physical and mechanical properties of elastomers, high impact resistance, high wear resistance, and good elasticity under extreme climatic conditions
- ⊙ Excellent corrosion resistance, water resistance, moisture resistance and leakage resistance;

Construction technology

1. Material preparation: When the temperature is below 15°C, the polyurea A and B components (viscosity should be less than 1500cps) need to be heated.
2. Equipment debugging: When entering the construction site pipeline, the equipment should be wrapped well, and no slag or leakage should occur. Before spraying, check the hydraulic pressure of A and B materials (1500~2300psi). If the hydraulic pressure differs by more than 300Psi, the pressure must be released and the material must be discharged before restarting the machine for debugging. The material temperature should be controlled at 65~75°C.

3. Polyurea construction: The spray distance is controlled at about 40cm. After the gun is moved, one gun covers 3/4~4/5 of the previous gun. The moving speed is about one step every two seconds. After spraying once vertically, check the coating film, level the large pores and depressions with repair materials, and after the repair materials are dried for 2 hours, spray them horizontally with the same spraying method to a thickness of 2cm.

4. Post-protection: Within 24 hours after the coating construction is completed, heavy objects should be avoided from rolling.

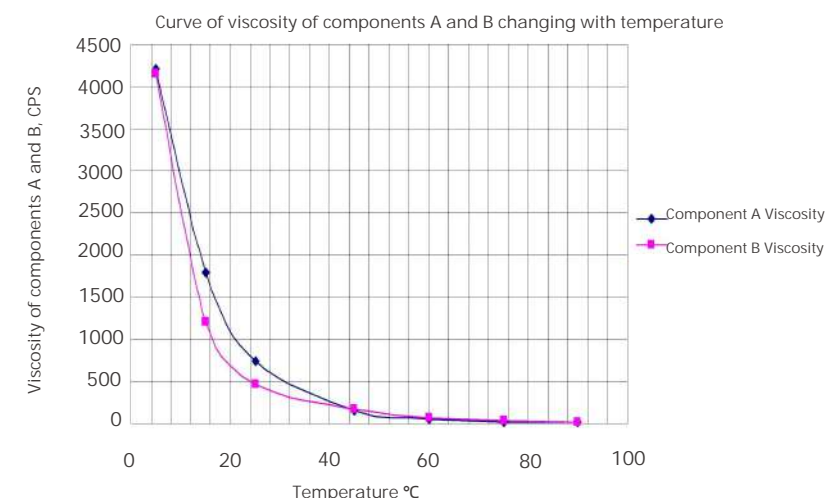
5. It is strictly forbidden to bring water, oil and other impurities into the construction work surface during construction. Polyurea construction should avoid severe weather such as fog, rain, and high temperature.

6. Workers should wear work clothes, goggles, gloves, gas masks and other labor protection supplies.

7. When spraying polyurea waterproof coating, the closer the viscosity of components A and B is, the more fully the components A and B are mixed.

The better the performance of the coating film.

The following is a curve of the change of components A and B with temperature, which provides users with reference.



Effects





Tank armored vehicle/military field polyurea coating products

Background

From the perspective of protection needs, tanks and armored vehicles face multiple threats in modern warfare. In addition to traditional armor-piercing and armor-piercing shells, there are also chemical corrosion and erosion in harsh environments. Polyurea coatings have excellent corrosion resistance and can provide protection for tanks and armored vehicles operating in humid, saline-alkali, chemically polluted environments, etc., to prevent corrosion of chassis, body and other parts, affecting equipment performance and life. At the same time, its high strength and impact resistance also help to improve the armor's ability to protect against some small shrapnel and explosion impacts, and to a certain extent buffer and disperse the impact force. From the perspective of performance advantages, the rapid curing characteristics of polyurea coatings are of great significance in the rapid repair and deployment of military equipment. In a battlefield environment, if the surface coating of a tank and armored vehicle is damaged, the polyurea coating can be cured in a short time to form a protective layer, allowing the equipment to quickly restore its protection capabilities. Moreover, it has good flexibility and can deform with the equipment without breaking. During the driving, turning, and obstacle crossing of tanks and armored vehicles, the deformation of the body will not cause the coating to peel off or crack.

Features

- ◎ Super UV resistance (5000h)
- ◎ High solid content, low VOC
- ◎ High wear resistance, high hardness, high acid rain resistance
- ◎ Impact resistance
- ◎ Good flexibility
- ◎ Products meet HG/T5368-2018 standards



Aspartame polyurea home decoration floor color change product

Background

Asparagus polyurea flooring is a high-performance, multi-functional, environmentally friendly floor material with a series of advantages such as protection and wear resistance, waterproof and anti-corrosion, green and environmental protection, easy cleaning and maintenance. In addition, it has good decorative properties and can be made into rock floors, colorful art floors and other effects to meet personalized design needs. It is widely used in home, commercial, industrial flooring and other fields.

Scope of application

- ✓ Home garage, commercial decoration and office floor, etc.;
- ✓ Especially suitable for places with high requirements for wear resistance and scratch resistance as well as high requirements for gloss and color retention;
- ✓ Outdoor places with direct sunlight.

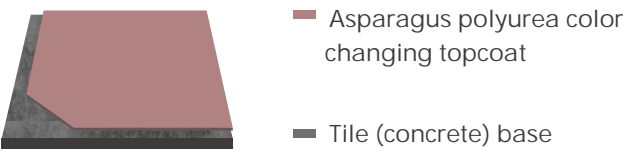
Features

- ⦿ Good decorative effect, durable and colorfast
- ⦿ Non-slip and wear-resistant
- ⦿ Environmentally friendly and odorless, safe to use

Technical indicators

Adhesion	≥2.5MPA (concrete)	Construction period	0.3-1h (25°C)
Wear resistance	≤15(750g/500r, mg)	Surface drying time	4h
Hardness	≥2H Pencil	Actual drying time	10h
UV resistant	No discoloration, blistering or shedding for 1500h	Coating interval	10-48h
Acid and alkali resistance	No discoloration, blistering or shedding within 240 hours	Coating method	Brush, roller,
Impact resistance	≥50Kg.cm	Construction quantity	0.15-0.25kg/m²
		luster	Half Light

Painting diagram



Construction technology

- 1 Pre-treat and dust the base surface, keep the base surface clean, dry, and free of oil stains;
- 2 Apply asparagus polyurea color-changing topcoat (0.15-0.25kg/m²);
- 3 After construction, keep it ventilated and use it normally after drying.

Effects





Aspartame polyurea supporting materials

Aspartame polyurea elastic joint filling putty

Scope of application

- ☑ Suitable for shrinkage joint filling

Features

- ⊙ Environmentally friendly
- ⊙ Good adhesion
- ⊙ Easy to construct and impact resistant

Technical indicators

Color	grey
Weight solid content	≥95%
Elongation	≥100%
Tensile Strength	≥6MPa
Adhesion	≥4MPa (Concrete)

Shipping and packaging

1. Avoid squeezing when packaging this product and keep the packaging intact;
2. The product should be stored in a cool, ventilated and dry place, and the storage temperature should be 0°C-30°C;
3. Under normal transportation and storage conditions, the shelf life of unopened products is 1 year;



Aspartame polyurea supporting primer

- 1 Sealing primer
- 2 Penetrating primer

Scope of application

- ☑ Mainly used for concrete base construction.

Features

- ⦿ Product Features Excellent permeability
- ⦿ Good adhesion to concrete substrate
- ⦿ Good pore sealing and concrete reinforcement

Performance parameters

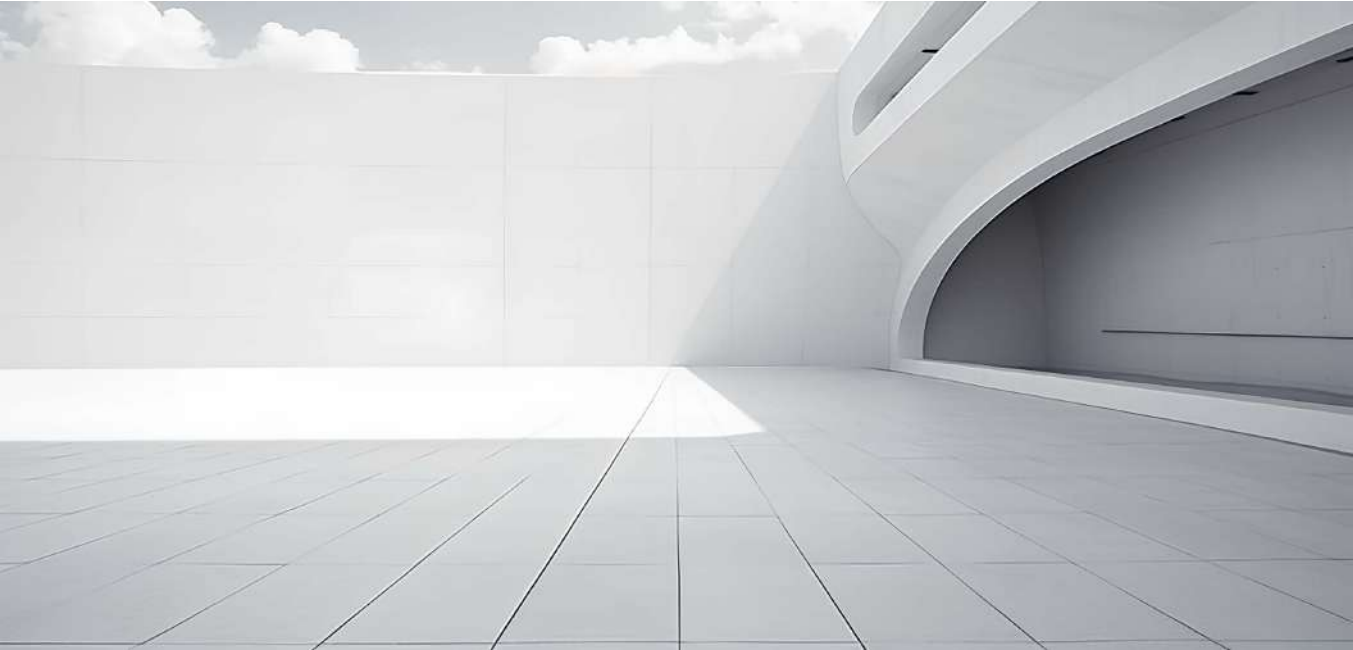
Color	The main agent is a colorless transparent liquid, and the curing agent is a slightly yellow or yellow transparent liquid.	
	Closed	Penetration
Surface Dryness	3-4h	4-10h
Actual drying	10-12h	8-20h
Actual drying	360h (no bubbles, no wrinkles, no shedding)	

Shipping and packaging

1. Avoid squeezing when packaging this product and keep the packaging intact.
2. Store the product in a cool, ventilated, dry place at a temperature of 0°C-30°C.
3. Under normal transportation and storage conditions, the shelf life of the unopened product is 1 year.

Precautions

1. The weight ratio of components A and B of the product must be accurate and must be mixed and proportioned strictly in accordance with the mass ratio standard;
2. No personnel are allowed to enter within 48 hours after the construction is completed, and it can be put into use after at least 7 days of maintenance;
3. The paint must be stirred evenly and no local deposition is allowed
4. The base surface must be dry and dust-free before applying the primer;
5. Avoid contact with skin and eyes. If contact occurs accidentally, rinse immediately. If contact occurs with eyes, rinse with plenty of water and seek medical attention immediately;
6. Keep the use environment ventilated.



Aspartame polyurea supporting materials

Environmentally friendly cleaning agent

Scope of application

- ☑ Used for diluting aspartame polyurea coatings, reducing construction viscosity, cleaning construction tools, etc.

Features

- ⦿ Good solubility
- ⦿ Environmentally friendly

Performance parameters

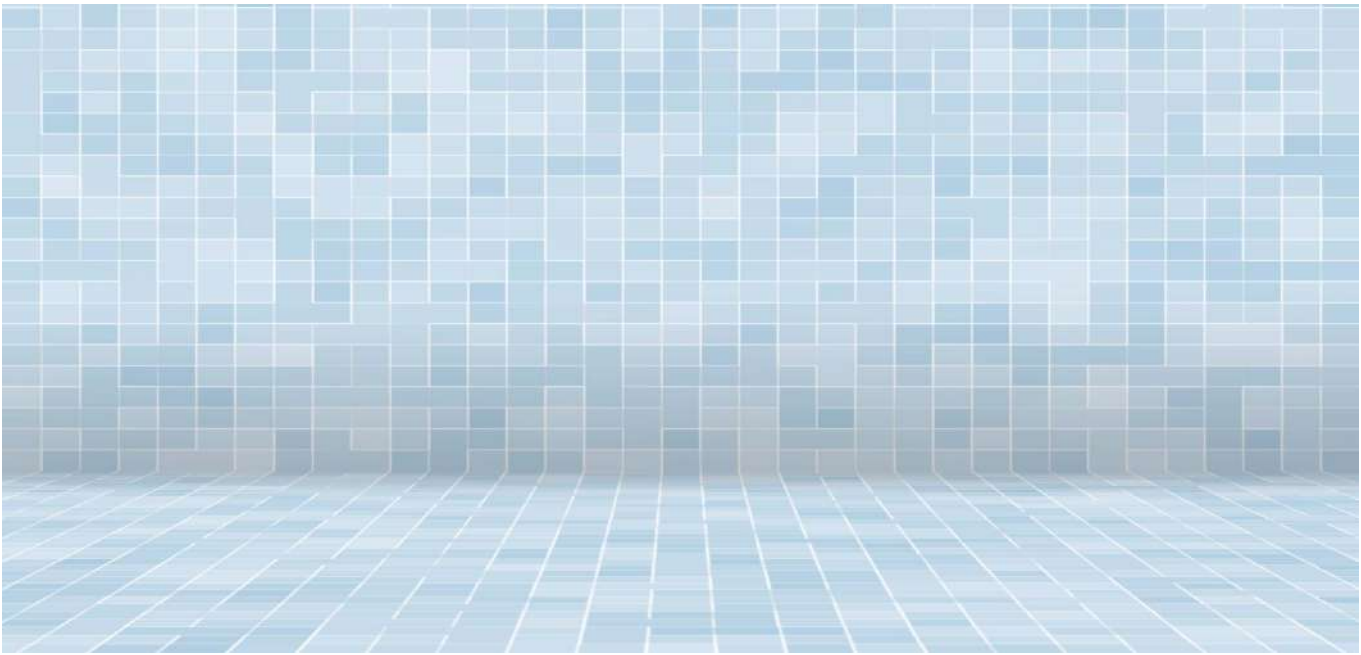
Appearance	Colorless transparent liquid
Odor	Organic solvent smell

Shipping and packaging

1. Avoid squeezing when packaging this product and keep the packaging intact;
2. Store the product in a cool, ventilated, dry place at a storage temperature of 5°C-35°C;
3. Under normal transportation and storage conditions, the shelf life of the unopened product is 1 year;

Precautions

1. Avoid contact with skin and eyes. If contact occurs, rinse immediately. If contact occurs with the eyes, rinse with plenty of water and seek medical attention immediately;
2. Keep the environment ventilated.



Aspartame polyurea supporting primer

Tile interface agent

Scope of application

- ☑ Strengthen the bonding between the tile base and the paint coating to prevent the coating from delamination and peeling.

Features

- ⦿ Water resistance, good permeability
- ⦿ Strong adhesion
- ⦿ Easy construction

Performance parameters

Appearance	Colorless transparent liquid
odor	Organic solvent smell

Transportation and packaging

1. Avoid squeezing when packaging this product and keep the packaging intact;
2. Store the product in a cool, ventilated, dry place at a storage temperature of 5°C-3°C;
3. Under normal transportation and storage conditions, the shelf life of the unopened product is 1 year;

Precautions

1. Avoid contact with skin and eyes. If contact occurs, rinse immediately. If contact occurs with eyes, rinse with plenty of water and seek medical attention immediately;
2. Keep the environment ventilated.

