MPUcoatings®

POLYASPARTIC POLYUREA RESINS

Jiangmen Choi Sum Environmental Materials Co., Ltd

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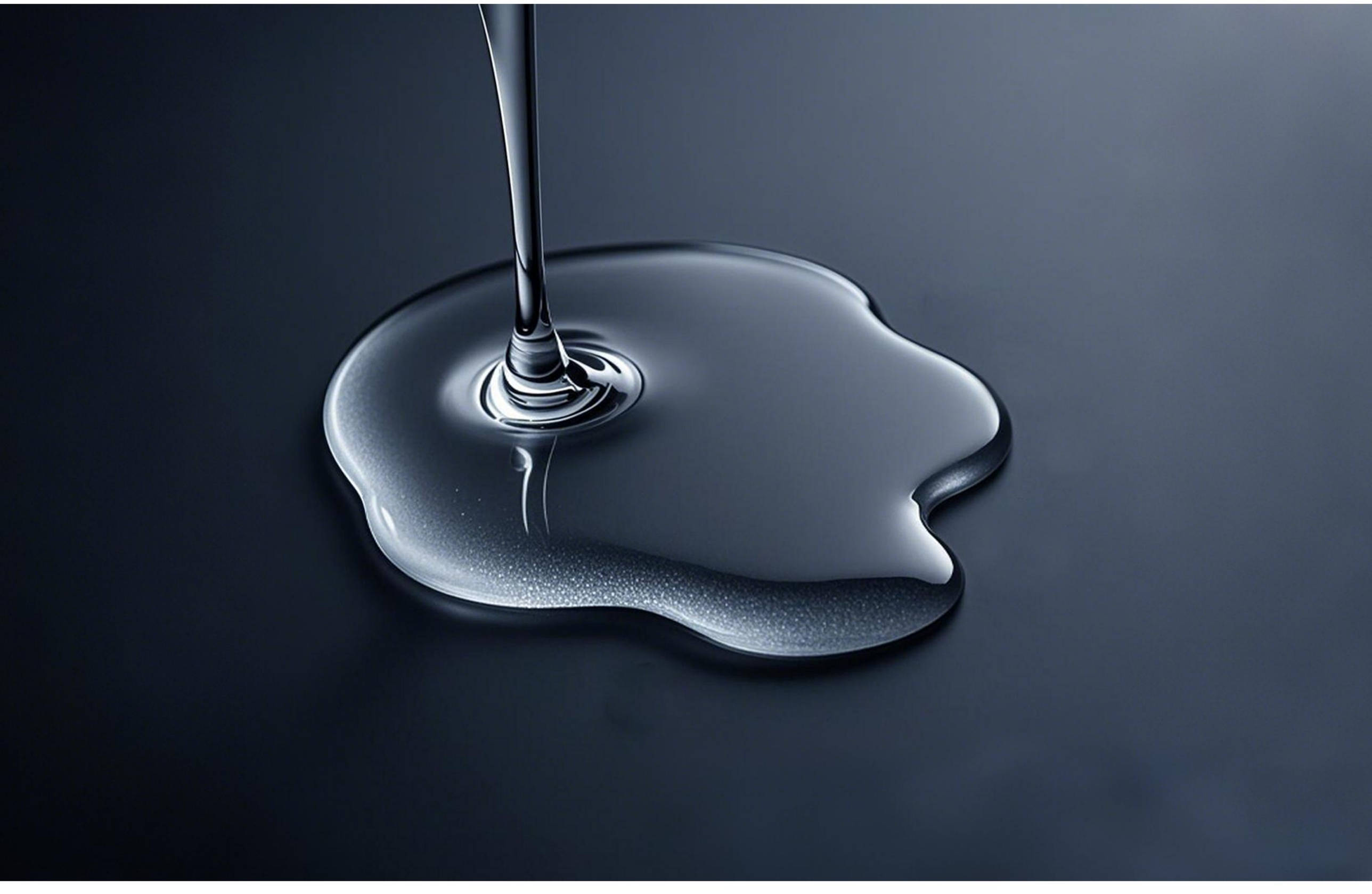
Polyaspartic ester is a yellowing-resistant, slow-reacting, high-performance material widely used in anti-corrosion, waterproofing, and protective coatings for pipelines, tunnels, bridges, roofing, and industrial flooring.

Jiangmen Choi Sum Environmental Materials Co., Ltd. specializes in polyaspartic ester development, offering customized materials, process equipment, and technical solutions. With professional and efficient service, we help clients achieve optimal results.



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POLYASPARTIC RESIN AND CURING AGENT

Polyaspartic Resin							
Resin Model	Relative Density (25°C)	Viscosity mpa.s (25°C)	Solid Content %	Equivalent Weight	Hydroxyl Content %	Gel Time min	Characteristics
1420	1.06	800 - 1200	99±1	277	6.14	18	Medium viscosity, fast curing, coating
1520	1.06	800 - 1200	99±1	291	5.84	100	Medium viscosity, slow curing, manual polyurea
1524	1.06	1500 - 1800	99±1	333	5.1	26	Medium viscosity, moderate speed, manual polyurea
1472	1.07	300 - 500	99±1	236	7.2	5	Low viscosity, fast gelation, spraying
1230	1.05	300 - 500	99±1	287	5.92	30	Low viscosity, fast gelation, spraying
1490	1.07	300 - 500	99±1	243	7	2	Low viscosity, fast curing, rock slab adhesive
5208	1.05	800 - 1200	99±1	299	5.69	100	Medium viscosity, slow curing, manual polyurea
4560	1.04	900 - 1300	99±1	347	4.9	120	Medium viscosity, slow curing, manual polyurea
4250	1.05	600 - 1000	99±1	236	7.2	20	Medium viscosity, moderate speed, waterproof, protective
2231	1.06	700 - 1000	99±1	250	6.8	20	Beauty seam resin
5516	1	1500 - 2000	99±1	1839	0.92	30	Low hardness, high equivalent weight, elastic coating

Curing Agent				
Curing Agent Model	NCO%	Viscosity mpa.s (25°C)	Solid Content %	Characteristics
H - 100	21.0 - 21.5	1000 - 1500	100	Low - cost, colorless and transparent
H - 300	19.5 - 20.5	200 - 700	100	Low - viscosity, colorless and transparent
H - 600	22.0 - 23.0	500 - 1000	100	Low - viscosity, high - cost
H - 1010	9.5 - 10.0	300 - 800	100	Elastic curing agent
H - 442	14.0 - 14.5	1000 - 1500	100	Low - viscosity, for floor and beauty seams
H - 333	14.0 - 14.5	1000 - 1500	100	Low - cost, no free monomer
H - 3004	14.0 - 14.5	700 - 1000	100	Low - viscosity, good low - temperature resistance, for beauty seams and spraying
H - 9100	22.5 - 23.0	1500 - 2000	100	Extremely low - cost, dark - colored and transparent, for dark - colored coatings

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NO VOC POLYASPARTIC POLYUREA WATERPROOF COATING

Waterproof Coating for Exterior Walls & Balconies

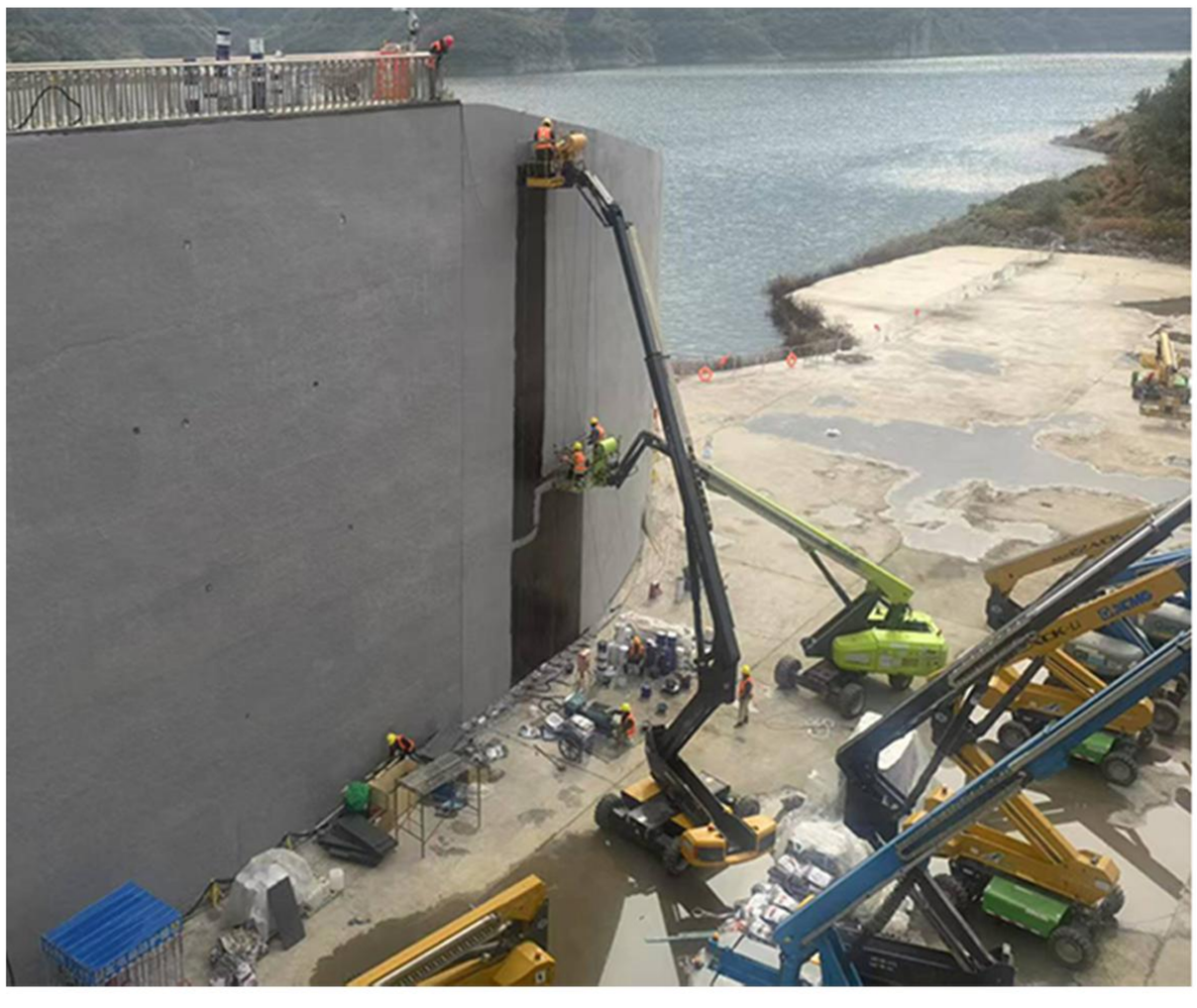
Features:

- Excellent weather resistance
- Crack-resistant, seamless protection, prevents tile detachment
- Anti-corrosion, mold-resistant, easy to clean
- Eco-friendly and safe to use

Polyaspartic Polyurea Waterproof Coating for Dams & Tunnels

Features:

- High elongation & tensile strength
- Superior elasticity & wear resistance



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POLYASPARTIC POLYUREA ANTICORROSIVE COATING

This high-performance coating uses advanced aliphatic polyaspartic polyurea resin and isocyanate, forming a dense, durable film with excellent barrier properties, abrasion resistance, chemical resistance, and UV stability. With high solid content and low VOC emissions, it allows for efficient single-coat application. Designed for heavy-duty anti-corrosion protection, it offers superior durability and long-lasting UV resistance (QUV up to 4,000 hours), making it ideal for engineering vehicles, wind power, water parks, and offshore platforms.

Project	Result
Anti - blocking Force	Grade 1
Impact Strength	≥50kg·cm
Hardness	2 - 3H
Flexibility	≤1mm
Abrasion Resistance	≤0.03g
Acid Resistance (240h in 5% sulfuric acid solution)	No corrosion, no blistering, no peeling
Alkali Resistance (240h in 5% sodium hydroxide solution)	No corrosion, no blistering, no peeling
Salt Resistance (240h in 5% sodium chloride solution)	No corrosion, no blistering, no peeling
Machine Oil Resistance (240h)	No corrosion, no blistering, no peeling
Water Resistance (30d)	No corrosion, no blistering, no peeling
Salt Fog Resistance	2000h
UV Resistance	4000h
Thermal - Cold Alternating Cycle (3 cycles)	Film intact, no anomaly
Water Vapor Permeability	0.007
Chloride Ion Permeability	0.7×10 - 4

POLYASPARTIC POLYUREA FLOOR COATING

Polyaspartic Polyurea Flooring Midcoat

Features:

- High elongation & tensile strength
- Superior elasticity & wear resistance
- Ideal for roofing waterproofing and flexible flooring midcoat

Project	Result
Adhesion	≥4.0MPa
Tensile Strength	≥16MPa
Elongation at Break	300 - 400
Tear Strength	≥70KN/M
Hardness (Shore A)	≥80
Low - temperature Bending	-40°C
Abrasion Resistance (750/500r)	≤0.03g
Acid Resistance (240h in 5% sulfuric acid)	No corrosion, no blistering, no peeling
Alkali Resistance (240h in 5% sodium hydroxide)	No corrosion, no blistering, no peeling
Salt Resistance (240h in 3% sodium chloride)	No corrosion, no blistering, no peeling
Machine Oil Resistance (240h)	No corrosion, no blistering, no peeling
Water Resistance (30d)	No corrosion, no blistering, no peeling

Polyaspartic Polyurea Flooring Topcoat

Features:

- Excellent UV resistance & color retention
- High hardness with flexibility
- Superior impact & abrasion resistance
- Strong adhesion to various substrates

Project	Result
Adhesion	≥10.0MPa
Tensile Strength	≥16MPa
Elongation at Break	≥50
Tear Strength	≥70KN/M
Flexibility	≤1mm
Low - temperature Bending	-40°C
Abrasion Resistance (750/500r)	≤0.03g
Acid Resistance (240h in 5% sulfuric acid)	No corrosion, no blistering, no peeling
Alkali Resistance (240h in 5% sodium hydroxide)	No corrosion, no blistering, no peeling
Salt Resistance (240h in 3% sodium chloride)	No corrosion, no blistering, no peeling
Machine Oil Resistance (240h)	No corrosion, no blistering, no peeling
Water Resistance (30d)	No corrosion, no blistering, no peeling

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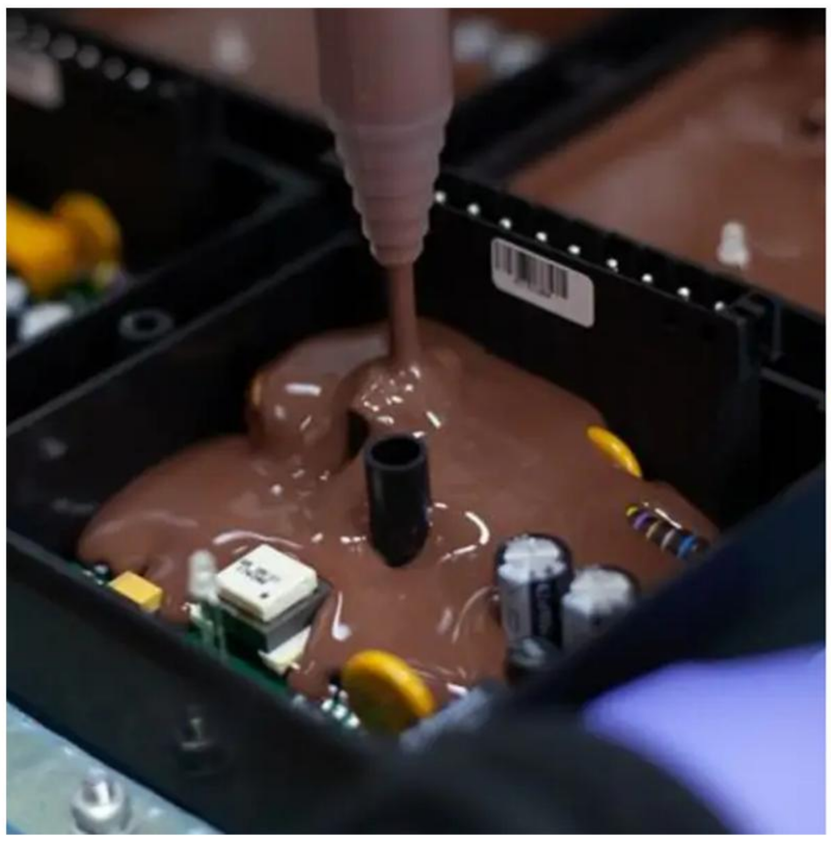
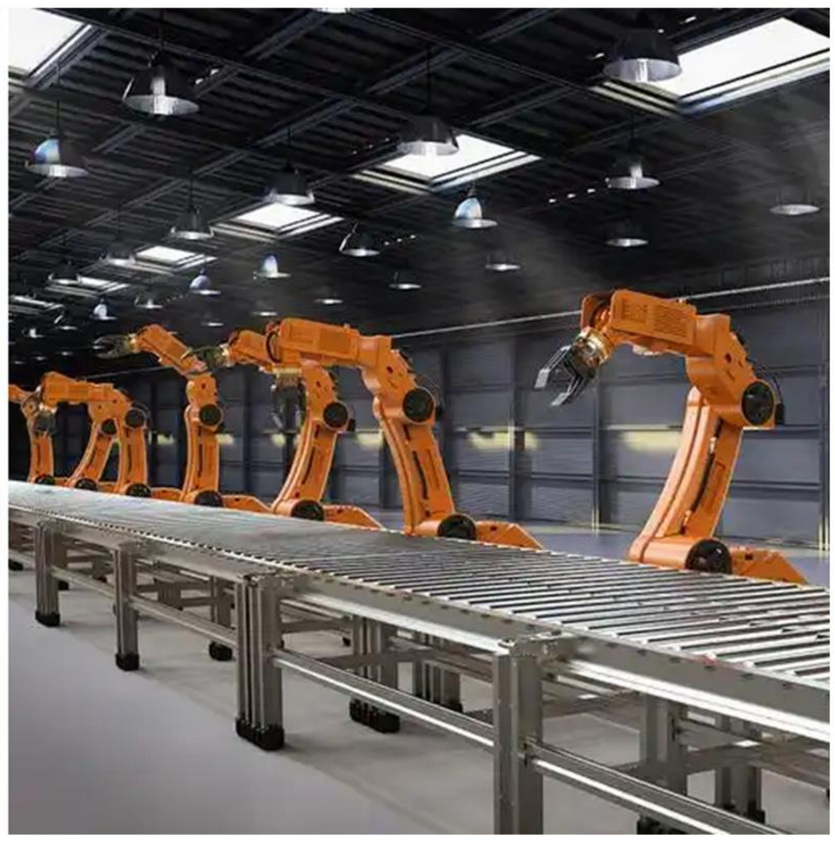
Polyaspartic Polyurea Potting Glue And Crystal Glue

Polyaspartic Polyurea Encapsulant for Batteries & Circuits

Polyaspartic polyureas superior weather and flame resistance make it ideal for power battery encapsulation, reducing aging, flammability, and explosion risks for enhanced safety.





Polyaspartic polyurea never yellowing crystal glue

Polyaspartic polyurea-based crystal products offer superior non-yellowing and high transparency, with easy preparation and greater durability compared to traditional epoxy resins and crystal.

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Polyaspartic polyurea seam beautifier

Polyaspartic polyurea, known for its excellent weather resistance, is used in high-demand applications like aerospace and shipping containers. In joint sealants, it combines polyurea's wear resistance and high hardness with polyurethane's flexibility. It overcomes the yellowing and brittleness of epoxy, offering benefits like solvent-free, crack resistance, easy application, and a fine, ceramic-like finish.

Component A (Tiandong Resin)		Component B (Curing Agent)	
Appearance	Light yellow and transparent	Appearance	Colorless and transparent
Viscosity	600 - 800	Viscosity	1000 - 2000
Solid Content	99±1%	Solid Content	100%
Amine Equivalent	380±20	NCO%	14.5±0.5%
Odor	No obvious odor	Odor	No obvious odor
Mixing and Pressing Time	25 - 30 minutes		
Hardness after Complete Curing	60 - 65 (Shore D)		
Recommended Formulation			
Component A		Component B	
Resin 2231/2235	100	Curing Agent 1005/333	100
Hydrophilic Aerosil	July 8th	Hydrophobic Aerosil	May 6th
Color Paste	January 2nd	Filler	May 10th

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