



## Flexible Aliphatic Polyurethane Paint (PPF-U)

### Introduction

Flexible Aliphatic Polyurethane Paint (PPF-U) is a two-component polyaspartic ester resin-based elastic anti-corrosion protective coating. It can be applied using spraying, brushing, or rolling methods. The coating cures quickly, forming a protective elastic film with excellent comprehensive performance, providing long-lasting protection against corrosion and waterproofing for concrete bridge decks or substrates.



### Main Application

- Anti-corrosion protection for concrete parts of railway bridge piers and abutments in coastal or high-altitude areas.
- Anti-corrosion protection for concrete parts of highway bridge piers and abutments in coastal or high-altitude areas.

Typical Features

- High tensile strength, good flexibility, and elasticity.
- Excellent impact resistance.
- Good resistance to acid, alkali, and salt corrosion.
- Excellent resistance to chloride ion penetration.
- Good UV resistance and aging performance.
- Strong adhesion to concrete substrates.
- Capable of bridging shrinkage cracks in concrete surfaces.
- Easy and convenient application.

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Technical Properties

Property	Value	Test Method
Non-volatile content (%)	≥65	GB/T 1725
Fineness (μm)	≤30	GB/T 1724
Surface dry time (h, 23 ± 2°C)	≤3	GB/T 1728
Pot life (min)	≥60	Q/CR 410
Tensile strength (MPa)	≥10	GB/T 528
Elongation at break (%)	≥200	GB/T 528
Low-temperature flexibility (-30°C)	≤2mm	GB/T 6742
Impact resistance	50cm	GB/T 1732
Adhesion to concrete substrate (MPa)	≥3.0	GB/T 5210
Heat resistance (80 ° C, 2h)	No sagging, bubbling, or slipping	GB/T 1735
Thermal cycling resistance (5 cycles)	No coating damage	Q/CR 410
Alkali resistance (10 days immersion in saturated calcium hydroxide solution)	No blistering, cracking, or peeling	GB/T 9274
Salt spray resistance (1000h)	No blistering, cracking, or peeling	GB/T 1771
UV resistance (1000h)	No significant discoloration	GB/T 14522
UV resistance (3000h)	No cracking or peeling	GB/T 14522

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## **Application Recommendations**

Open the package and stir the A and B components separately until uniform. Mix the components according to the specified ratio and stir thoroughly. Then apply by rolling, brushing, or spraying onto the pre-treated concrete surface. The mixed material should be used promptly to avoid gelation and loss of effectiveness.

Mixing Ratio: A/B = 100/60

Material Consumption: 100~200g/m<sup>2</sup>, with a dry film thickness of approximately 50~100μm.

Concrete Substrate Temperature: Should not exceed 45°C. The surface must be dry, clean, and solid.

*Precautions: Open flames and sparks are strictly prohibited at the construction site. Workers should wear appropriate protective gear.*

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## **Packaging and Storage**

*Packaged in 32kg/kit buckets. During transportation, protect from sun and rain, and avoid proximity to heat sources, fire, and food. Store in a cool, dry, ventilated place, away from direct sunlight. The storage temperature should not exceed 40°C. The product is valid for one year under normal storage conditions if unopened.*

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## **Safety and Health**

Ensure good ventilation in the work area.

*Note: The technical data and application methods provided are based on our current professional knowledge and practical experience and are for reference only. For specific project applications, please consult our sales or technical personnel for detailed and comprehensive technical guidance and service.*