



## **Qtech-411 Bridge Ultra-Long Service Life Polyurea Material PRODUCTION INFORMATION**

### ***Production Description :***

**Qtech-411 Bridge Ultra-Long Service Life Polyurea Material** is independently developed by Qingdao Shamu International Trade Co., Ltd. It is the state of the art 100% solids, ultra fast cure, flexible, spray-applied, high build, and two components aliphatic pure polyurea elastomer. The system consists of A component, a quasi-prepolymer rich of free NCO, and B component, a mixture of polyetheramines, amine extenders and other additives. **Qtech-411** is an aliphatic polyurea elastomeric which is color fast and resist yellowing. **Qtech-411** is extremely stain resistant with a high gloss finish and displays excellent UV weathering characteristics. It is used by itself or in combination with other materials to produce ultra weather coatings, liners, wearing courses, and resilient surface on bridge concrete and other substrates. **Qtech-411** can produce an extremely tough film at all thicknesses; it may be applied in all positions and to any suitably prepared substrate. **Qtech-411** is relatively moisture and temperature insensitive, allowing applying in the most problematic ambient conditions. It is the optimum choice for tough, flexible, color stability, anti-corrosion system to bridge painting.

### ***Advantages :***

1. Fast cure, short down time, no sagging
2. Excellent Physiochemical Properties
3. Bondable and paintable to various kinds of substrates
4. Ambient insensitive, good thermal stability
5. 100% Solids, No VOC's, Odorless, No Toxic Vapors
6. Good resistance to a wide range of chemical attack
7. Anti-corrosion, Skidding resistance, Impermeable, Abrasion resistant
8. Good weather ability, Added UV Stability
9. Seamless, flexible, slick and non-porous
10. No chalking and fading in long-term use outdoors

### ***Recommended Uses:***

**Qtech-411 Bridge Ultra-Weather Resistant Polyurea Material** is an ultra fast cure system; it can be applied at thicknesses of several ten millimeters, or greater, in a single application. It can be widely used in Bridge Tower, Exposed Signs and Displays, Architectural Finishes; it can also be applied in Over Urethane Form Roofing, Over Metal or Concrete Roofing, Urban Landscape, Metal Fabrication and Online Shop Painting and Industries, Amusement and Water Park Equipment and Rides.



### ***Physical Properties:***

Tensile Strength/ MPa	16
Elongation/%	450
Tear Strength/( N/mm)	45
Shore Hardness	D-55
Abrasion Resistance /(GB/T 1689-1998, cm <sup>3</sup> /1.61km, mg)	≤0.5
Friction Coefficient	0.85~0.96
Adhesion /(Pull off, MPa)	≥2.8
Outdoor Aging/(10 years)	Tensile strength retention ratio ≥ 80%
Density/( g/cm <sup>3</sup> )	0.95~1.05

### ***Product Characteristics:***

Solids/%	100
VOC (calculated)	0
Gel Time/s	12
Tack Free/s	20~30
Shelf Life	6 months, unopened at 15~40 °C
Flash Point/ °C	>100
Mix Ratio V/V	1: 1
Recommended Spreading Thickness/mm	2~3
Colors	Optional

Drying time is temperature, humidity, and film thickness dependent.

### ***Chemical Resistance:***

Consult our technician and chemical test data for corrosive environment applications.

### ***Installation:***

Consult our application information and recommended method statements.

### ***Packaging:***

Part A: 220kilogram per drums.

Part B: 200 kilogram per drums. (Custom package available at additional charge)



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**Notes:**

1. Qtech product is intended for industrial use by properly trained professional applicators only.
2. Thoroughly mix container of B component with an air-driven power mixer for a minimum of 15 minutes prior to application.
3. Adding a nitrogen blanket is strongly recommended for use on the “A” component for storage after opening.
4. It is a 100% solids production, strictly prohibit add any diluents.
5. The quality and fitness of the product is depending upon the proper mixture and application of the component by the applicator.
6. This specification is an accumulation of long term testing and experience. Published technical data and instructions are subject to change without notice.
7. For more information please contact us or visit our website [www.shamu-intl.com](http://www.shamu-intl.com) and [www.polyurea.cn](http://www.polyurea.cn).