

## TECHNICAL DATA SHEET

### BC 237 Pure Polyurea

#### Fast-curing, elastic pure polyurea waterproofing membrane

#### 1). Product Description

BC 237 Pure Polyurea is a solvent-free, 100% solid, two-component, spray- applied waterproofing coating based on polyurea technology. It forms a seamless, permanently elastic, crack-bridging membrane with outstanding adhesion to concrete and metal substrates. Designed for long-term protection of exposed roof decks, podiums, tanks, and marine structures, it cures within seconds to provide a highly durable, chemical- and abrasion-resistant surface.

#### 2). Key Features & Benefits

- Seamless waterproofing membrane – eliminates weak points and joints.
- Fast cure (seconds to minutes) – enables rapid multi-layer application and quick return-to-service.
- High elasticity & crack-bridging – maintains flexibility under thermal and structural movements.
- Excellent UV & weathering resistance – long-term durability for exposed surfaces.
- Outstanding chemical and seawater resistance – suitable for marine and industrial environments.
- High abrasion and impact resistance – protects against mechanical wear.
- Potable water safe – suitable for tank lining applications.
- Wide service temperature range: -30 °C to +140 °C.
- VOC-free & Product eligible to contribute to LEED – environmentally friendly, low-emitting material.



### 3). Typical Component Properties

Property	Unit	BC 237 Polyol	BC 885 Isocyanate	Test Method
Appearance	-	Yellowish	Yellowish	DIN 52002
Density (23 °C)	g/cm <sup>3</sup>	1	1.1	DIN 53217
Viscosity (23 °C, Brookfield)	mPa·s	500	1500	DIN 53019
Flash Point	°C	>200	>200	DIN 52578
Storage Temperature	°C	15–25	15–25	-
Shelf Life	months	6	6	-

### 4). Recommended Processing Conditions

Parameter	Unit	Typical Value
Mix Ratio (Polyol: Iso)	pbv	100: 100
Processing Temperature (Polyamine /Iso in tanks & hoses)	°C	70–90
Processing Pressure (Polyol/Iso)	bar	150–180
Mixing	-	High-pressure impingement, 2K spray equipment

### 5). Reaction Characteristics

Property	Unit	Typical Value
Gel Time	s	2–3
Pot Life	s	6–7
Final Hardness	days	2
Curing Time (per layer)	s–min	3 sec – 15 min



## 6). Typical Polymer Properties

(Values are indicative and may vary depending on application conditions)

Property	Unit	Typical Value	Test Method
Shore Hardness	Shore D	53	DIN 53505
Tensile Strength	N/mm <sup>2</sup>	23.1	DIN 53504
Elongation at Break	%	310	DIN 53504
Tear Resistance	N/mm	74	DIN 53515
Abrasion Resistance	mg loss (1000 cycles, 1kg)	220	DIN 53516
Density	g/cm <sup>3</sup>	1	DIN 53420
Natural Salt Spray Resistance	Hours	≥ 2500	ASTM B117

## 7). Application System

### 1. Surface Preparation

- Substrate must be clean, sound, dry, and free of oil, grease, dust, and laitance.

### 2. Priming

- Old/porous concrete: Apply BC Epoxy Primer 349 for sealing and adhesion.

### 3. Membrane Application

- Apply in multiple passes to achieve minimum dry film thickness of 1.5–2.0 mm (depending on service requirements).

## 8). Packaging

- BC 237 Polyamine (Component B): 196 kg drum
- BC 885 Isocyanate (Component A): 220 kg drum

## 9). Coverage

Consumption is approx. 1.0 kg/m<sup>2</sup> per 1 mm thickness



## 10). Handling & Storage

- Store in tightly sealed original containers at 15–25 °C.
- Protect from moisture, direct sunlight, and frost.
- Shelf life: 6 months (unopened containers).

## 11). Health & Safety

- Avoid contact with skin and eyes; wear gloves and goggles during application.
- Use in well-ventilated areas.
- In case of contact, wash immediately with clean water and seek medical attention.
- Refer to Material Safety Data Sheet (MSDS) for full details.

### DISCLAIMER

The data presented in this sheet are based on laboratory testing and practical experience. Variations in substrate, application method, and environmental conditions may impact performance. Users are advised to carry out tests under their own conditions. Building Chemistry Industry's responsibility is limited to the product replacement in cases of proven manufacturing defect.

