BUILDING COMFORTS™
The Water Proofing Company

TECHNICAL DATA SHEET

PU SEALANT BC 600

MADE IN CHINA

High-performance professional elastic polyurethane (PU) sealant

DESCRIPTION

BC 600 PU Sealant (UV Protected) is a professional premium-grade, single-component polyurethane-based elastic sealant that cures dynamically under the structural influence of atmospheric humidity. Formulated specifically to offer advanced UV resistance and excellent environmental stability, it creates a flexible, highly resilient seal capable of accommodating significant structural movements while maintaining optimal adhesion profiles over extended life cycles.



TYPICAL APPLICATIONS

- Expansion joints in buildings, highways, and high-performance infrastructure projects.
- Structural bonding and seam jointing for precast panels, concrete roof tiles, and masonry.
- Premium perimeter sealing for wood, aluminum, and architectural PVC joinery systems.
- Heavy-duty flexible waterproofing joints across traditional and industrial construction platforms.



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TECHNICAL DATA

Physical / Mechanical Property	Typical Specification Value
Appearance	Thixotropic, homogeneous pasty compound
Standard Available Colors	Grey / Black / White
Density at 20°C (DIN 53479)	1.20 ± 0.06 g/ml
Solid Content Volume	> 94%
Sagging Resistant Limit (DIN 52454)	None or < 3 mm
Application Temperature Range	0 °C to 40 °C
Skin Formation Time (at 23°C, 50% RH)	60 to 150 minutes
Curing Depth Rate (at 23°C, 50% RH)	2.0 to 3.0 mm per 24 hours
Shore A Hardness - Fully Cured (DIN 53505)	30 ± 5
Ultimate Elongation Break Rate (DIN 53455)	> 600%
Joint Movement Accommodating Factor	± 25% to 50%
Modulus at 100% Elongation (ISO 8339)	Approx. 0.38 MPa
Tensile Strength Limit (DIN 53455)	1.6 MPa
UV Light Degradation Resistance	Excellent / Protected Formulation
Water & Salt Spray Resistance	Excellent - Suitable for marine exposure limits
Paint Compatibility Matrix	Water-based: Yes | Solvent-based: Carry out preliminary verification trials

SAFETY & OPERATIONAL PRECAUTIONS

The chemical compound is classified as non-hazardous under standard industrial transport regulations. However, personnel must wear adequate safety protective coveralls, chemical-resistant gloves, and splash goggles during active handling. Maintain strict ventilation control frameworks across interior spaces. Avoid direct mucosal layer contact or prolonged epidermal exposure. Review full Safety Data Sheet (SDS) before deployment.

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APPLICATION DIRECTIVES

Substrate Preparation Matrix

The topping is laid over fresh concrete. The base concrete should be designed to have a minimum cement content of 320 kg per m^3, with a low water-cement ratio. Place and compact the base concrete carefully, particularly at corners and edges.

The topping is laid directly over fresh green concrete. It may be laid over 1:2:4 or 1:1.5:3 concrete. For optimal results, a 20 mm 1:2 layer consisting of 1 part cement and 2 parts natural stone chips (6 mm down) is recommended over the base concrete before installation of the topping.

No Primer Required

BC 600 PU Sealant is engineered with high-affinity chemical anchoring groups. The majority of typical architectural construction substrates—including stabilized concrete, masonry, treated timber, metals, and standard engineering plastics—can be bonded securely without primer elements. If irregular or highly porous sub-surfaces require priming under exceptional extreme site limits, execute localized adhesion qualification tests prior to general execution.

Jointing & Structural Placement

BC 600 PU Sealant should be applied evenly via a standard manual or heavy-duty pneumatic sausage application gun. Following clean material placement into the joint void, utilize a suitable curved putty knife or joints trowel to tool and smooth the sealant face tightly against the joint flanks; wetting the tooling instrument with soapy water facilitates a smooth, professional aesthetic surface finish.

Important Window of Exposure

This material must be completely discharged and tooled within 24 hours of opening the primary aluminum sausage envelope protection. Failure to do so will induce atmospheric moisture curing inside the barrel cartridge, rendering the remainder unworkable. Do not execute installation sequences when ambient or substrate thermal points register below 0°C. In extreme cold weather setups, store the material safely at a controlled 20°C baseline for 24 hours before active deployment. Avoid any exposure to non-cured MS polymers, hybrid PUs, or conventional silicone sealants, as well as active alcohols or ammonia vapors during the cross-linking curing lifecycle. Qualification tests prior to general execution.

Equipment Cleaning Metric

All hand tools, mixing utensils, and application gun barrels must be thoroughly cleaned using MEK, Acetone, or an equivalent solvent cleaner before the sealant undergoes complete atmospheric cure transformation. Once the material progresses into its fully cross-linked cured elastic state, it resists standard chemical attack and can only be extracted via rigorous mechanical abrasion or physical cutting procedures.

THEORETICAL CONSUMPTION GUIDE (PER 600 ML SAUSAGE)

Nozzle / Tube Diameter (mm)	Estimated Theoretical Cord Length Yield
2 mm Joint Section	Approx. 375 meters per sausage
3 mm Joint Section	Approx. 165 meters per sausage
4 mm Joint Section	Approx. 93 meters per sausage
5 mm Joint Section	Approx. 58 meters per sausage
6 mm Joint Section	Approx. 42 meters per sausage
7 mm Joint Section	Approx. 31 meters per sausage
8 mm Joint Section	Approx. 23 meters per sausage
9 mm Joint Section	Approx. 18 meters per sausage
10 mm Joint Section	Approx. 14 meters per sausage

STORAGE & EXPIRY FRAMEWORK

The product maintains a guaranteed shelf life stability duration of 12 months from documented manufacturing timelines when held continuously within original, unopened, hermetically sealed aluminum foil sausage packaging containers. Storage environments must remain strictly climate-controlled between a baseline temperature parameter of 5°C and 25°C, away from direct thermal exposure, solar radiation, frost, or wet weather penetration.

IMPORTANT NOTICE & LEGAL DISCLAIMER FRAMEWORK

The engineering values, technical properties, and practical application recommendations provided within this Technical Data Sheet are derived from exhaustive empirical lab verification trials according to standardized DIN 50014 climatic test conditions, coupled with extensive field contractor experience. These values are representative of mean product averages and are presented in good faith without direct structural or third-party liability on the part of BUILDING COMFORTS. Because external job site environments, specific substrate properties, and contractor execution controls lie outside our oversight, it remains the absolute legal responsibility of the purchasing engineer or application technician to verify the absolute chemical and physical compatibility of the product for their intended construction application. BUILDING COMFORTS reserves the absolute right to structurally amend, refine, or update technical parameter bounds without prior formal notice.

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