



# Technical Data Sheet

## BC 703 SWP

### Two-Component Sandwich Panel Polyurethane System (B2 Fire Rating)

#### 1. Product Description

BC 703 SWP is a two-component rigid polyurethane foam system consisting of BC 703 Polyol and BC 768 Isocyanate, specially developed for discontinuous sandwich panel production.

The system is designed to achieve a molded foam density of 42–45 kg/m<sup>3</sup> with excellent adhesion to metal sheets.

When mixed in the recommended ratio, it forms a highly crosslinked, dimensionally stable, closed-cell rigid foam that meets B2 Fire Rating (DIN 4102).

#### 2. Features & Advantages

- B2 fire rating according to DIN 4102
- Excellent adhesion to metal substrates
- Highly crosslinked & dimensionally stable rigid foam
- Good mechanical strength (110 kPa compressive strength)
- Uniform cell structure for panel consistency
- Optimized reaction profile for discontinuous panel lines
- Stable processing window & consistent flow characteristics
- Good anti-shrinkage properties
- Suitable for various insulated sandwich panel applications

#### 3. Typical Uses

- Discontinuous sandwich panel production
- Insulated wall and roofing panels
- Cold storage and refrigerated structures
- Metal-faced PU panels
- Prefabricated building components
- Industrial enclosure insulation



## 4. Technical Data

(All values under controlled laboratory conditions)

System Type	BC 703 SWP System
Mix Ratio (ISO: Polyol)	1: 1.1 – 1: 1.2
Cream Time	25 seconds
Gel Time	180 seconds
Free Rise Density	30 kg/m <sup>3</sup>
Molded Foam Density	42–45 kg/m <sup>3</sup>
Fire Rating	B2 (DIN 4102)
Compressive Strength	110 kPa
Dimensional Stability	< 1%
Thermal Conductivity	0.021 W/m·K
Polyol Viscosity (25°C)	450 mPa·s
Isocyanate Viscosity (25°C)	210 mPa·s
NCO Content of ISO	31% by weight
Processing Temperature	18–25°C recommended

## 5. Surface Preparation

For sandwich panel production:

- Ensure metal sheets are clean, dry and free of oil, dust or release agents.
- Metal sheets must be conditioned to 18–25°C for consistent adhesion.
- Remove condensation before injection.
- Ensure proper alignment of panel molds.



## 6. Mixing

- Mix through standard PU foam high-pressure machines.
- Maintain accurate ISO:Polyol ratio of 1:1.2 – 1:1.3 depending on panel thickness.
- Keep both components at 18–25°C for optimal reactivity.
- Do not allow moisture to enter drums—reactivity will change.

## 7. Application

- Inject foam using a calibrated polyurethane injection machine.
- Ensure uniform distribution inside panel cavity.
- Close mold immediately after injection.
- Ensure adequate curing before demolding.
- Avoid applying in ambient temperatures below 15°C.
- Ensure ventilation during production.

## 8. Packaging

- BC 703 Polyol: 220 kg Drum
- BC 768 Isocyanate: 250 kg Drum

## 9. Shelf Life & Storage

- 6 months in original, sealed drums.
- Store at 15–25°C.
- Protect from moisture and direct sunlight.
- Low temperatures will increase viscosity and affect mixing.

## 10. Health & Safety

- Wear gloves, goggles, and protective clothing.
- Use air-purifying respirator during handling/spraying.
- Avoid skin and eye contact.
- Ensure proper ventilation.
- Do not allow moisture into drums.
- Refer to SDS for full safety information.

### 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.

