

Technical Data Sheet

BC 709 HD FOAM

High-Density Polyurethane System

1). Product Description

BC 709 HD Foam is a two-component, high-density polyurethane system comprising BC 709 Polyol and BC 768 Isocyanate, designed for producing rigid molded parts, wood-imitation components, and structural foam products. The resulting foam exhibits excellent compressive strength, superior dimensional stability, strong substrate adhesion, and enhanced performance compared to conventional rigid PU systems.

2). Features & Advantages

- High-density rigid foam with excellent mechanical strength
- Superior adhesion to wood and rigid substrates
- Low thermal conductivity for thermal efficiency
- Excellent dimensional stability (<1%)
- Controlled and consistent reaction profile
- Suitable for a wide range of industrial molding applications

3). Typical Uses

- Wood-imitation molded parts
- Rigid molded industrial components
- Structural insulation blocks or inserts
- General rigid PU applications requiring high strength



4). Technical Data

Category	Property	Value
Reaction Characteristics	Cream Time	30 seconds
	Gel Time	120 seconds
	Free Rise Density	60 kg/m ³
Compound Characteristics	Polyol Viscosity	2000 mPa · s @ 25°C
	Isocyanate Viscosity	210 mPa · s @ 25°C
	NCO Content	31% by weight
Polymer (Foam) Properties	Density	80 kg/m ³
	Compressive Strength	> 200 kPa
	Dimensional Stability	< 1%
	Thermal Conductivity	0.032 W/m · K

5). Surface Preparation

- Ensure substrate is clean, dry, and free from dust, oil, and all contaminants.
- Pre-condition both components to 20°C for consistent reactivity.
- Prevent moisture contamination as it reacts with isocyanates.

Mixing

- Recommended processing temperature: 20°C.
- Do not process materials below 10°C to avoid crystallization.
- Maintain correct machine ratio and mixing pressure.

6). Application

- Compatible with high-pressure and low-pressure PU dispensing machines.
- Mix and dispense materials according to equipment recommendations.
- Allow foam to expand and fully cure before demolding.
- Ensure good ventilation during application.



7). Packing

- BC 709 Polyol: 220 kg drum
- BC 768 Isocyanate: 250 kg drum

8). Shelf Life & Storage

- Shelf Life:
 - Polyol: 6 months
 - Isocyanate: 6 months
- Store between 10–20°C.
- Protect drums from moisture.
- Avoid freezing; crystallization may damage pumps and affect ratio.

9). Health & Safety

- Use air-purifying respirator during handling and spraying.
- Wear rubber gloves and protective clothing.
- Use safety goggles to avoid splashes.
- Avoid inhalation of vapors and aerosols.
- Wash hands before eating, drinking, or smoking.
- Dispose of waste according to local regulations.
- Re-occupancy without PPE only after 24 hours with proper ventilation.

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.

