

Technical Data Sheet

BC 710 PIR

Polyisocyanurate (PIR) Rigid Foam System

1). Product Description

BC 710 PIR is a two-component, 141B-based polyisocyanurate (PIR) foam system designed specifically for the discontinuous production of insulated sandwich panels. The system provides excellent adhesion to metal substrates, high compressive strength, enhanced fire performance (B2 rating as per DIN 4102), and superior thermal insulation properties. It delivers stable processing, controlled reaction profile, and optimized foam quality for industrial panel manufacturing.

2). Features & Advantages

- Excellent adhesion to metal facings & sandwich panel substrates
- High thermal insulation with low λ -value (0.022 W/m·K)
- Improved fire behavior (B2 Classification – DIN 4102)
- Excellent dimensional stability
- Controlled reaction profile for stable production
- Suitable for discontinuous (press) sandwich panel manufacturing
- Uniform cell structure and consistent foam density

3). Typical Uses

- Discontinuous PIR sandwich panel production
- Cold storage panels
- Building insulation boards
- Industrial PIR foam applications requiring high thermal performance and fire rating



4). Technical Data

Category	Property	Value
Reaction Characteristics	Cream Time	25–30 seconds
	Gel Time	150–155 seconds
	Free Rise Density	35–37 kg/m ³
	Isocyanate: Polyol Ratio	1.6: 1
Compound Characteristics	Polyol Viscosity	450 mPa · s @ 25°C
	Isocyanate Viscosity	210 mPa · s @ 25°C
	NCO Content	31% by weight
Polymer (Foam) Properties	Density (Molded)	42 kg/m ³
	Compressive Strength	150 kPa
	Dimensional Stability	< 1%
	Thermal Conductivity	0.022 W/m · K
Fire Rating	DIN 4102	B2 Class

5). Surface Preparation

- Ensure metal sheets or substrates are clean, oil-free, and dry.
- Remove dust, rust, and contaminants that may affect adhesion.
- Maintain material and mold temperature as recommended for best performance.
- Prevent moisture exposure—water reacts with isocyanates and affects foam quality.



Mixing

- Ensure both components (Polyol & Isocyanate) are stored and pre-conditioned at 20°C.
- Avoid temperatures below 10°C, as crystallization may occur.
- Maintain the correct machine ratio of 1.6: 1 (Iso: Polyol).

6). Application

- Designed for discontinuous sandwich panel press machines.
- Dispense the mixture uniformly across the panel cavity.
- Allow full foam expansion and curing before demolding.
- Ensure proper ventilation during production.

7). Packing

- BC 710 Polyol – 220 kg Drum
- BC 768 Isocyanate – 250 kg Drum

8). Shelf Life & Storage

- Shelf Life: 6 months (Polyol) & 6 months (Isocyanate)
- Store between 10–20°C in a dry, shaded, and well-ventilated area.
- Protect drums from moisture—any exposure changes reactivity.
- Avoid freezing or temperatures below 10°C to prevent crystallization.

9). Health & Safety

- Wear rubber gloves, protective clothing, and goggles during handling.
- Avoid contact with skin and eyes—wash immediately if contaminated.
- Prevent inhalation of vapors—use proper ventilation .
- Do not eat, drink, or smoke during use.
- Refer to the product's Safety Data Sheet (SDS) for detailed guidance.

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.

