

Technical Data Sheet

BC PVC 1200

Single Ply Waterproofing Membrane for Covered Roofing Systems

1). Product Description

BC PVC 1200 is a high-performance, calendared and extruded polyvinyl chloride (PVC) waterproofing membrane with a nominal thickness of 1.20 mm. The membrane is engineered to deliver long-term watertight integrity, excellent mechanical strength, and superior dimensional stability.

2). Uses

- Covered roofing systems
- Protected membrane roofs
- Re-roofing and refurbishment applications
- Waterproofing under thermal insulation boards

3). Advantages

- No Torch Required: Safe application using hot air welding – eliminates fire hazards.
- Hot Air Weldable: Homogeneous PVC-to-PVC jointing without sealants or adhesives.
- Easy Installation: No primers or bonding agents required on horizontal surfaces.
- Fire Resistant: Self-extinguishing and meets ASTM E108 Class B fire classification.
- Temperature Tolerant: Retains flexibility in both hot and cold environments.
- Repairable: Easily joined to new material during future extensions or repairs.
- Low Slope Compatible: Performs effectively even with minimum roof slopes.



4). Technical Data

Property	Test Method	Typical Values
Overall thickness (mm)	ASTM D 751 / D 638	1.2
Breaking strength (N/50 mm)	ASTM D 751	≥ 260
Elongation at break (%) – MD / CMD	ASTM D 638	≥ 270 / ≥ 250
Seam strength (% of tensile)	ASTM D 638	≥ 80
Retention after heat aging – tensile (%)	ASTM D 638	≥ 92
Retention after heat aging – elongation (%)	ASTM D 638	≥ 92
Tear resistance (N)	ASTM D 1004	≥ 60
Low temperature flexibility	ASTM D 2136	Pass (-20°C)
Accelerated weathering (5000 hrs.)	ASTM G151	No cracking / No crazing
Dimensional stability (%)	ASTM D 1204	≤ 0.09
Water absorption change in weight (%)	ASTM D 1204	±2
Static puncture resistance	ASTM D 5602	Pass
Dynamic puncture resistance	ASTM D 5635	Pass
Fire resistance	ASTM E108	Class B
Standards compliance	ASTM D 4434 Type II	Meets



5). Application Instructions

1. Surface Preparation

- Ensure concrete deck is structurally sound and properly sloped toward drainage outlets.
- Apply a sloping screed of sand–cement or lightweight concrete as needed.
- If the surface is rough, apply a 150-micron polyethylene separation sheet before laying the membrane.
- For protected systems, an additional separation layer may be placed above the membrane prior to thermal insulation.

2. Horizontal Surface Application

- Unroll BC PVC 1200 membrane loosely over the prepared surface.
- Overlaps between sheets must be minimum 50 mm and welded with hot air guns.
- Avoid placing joints against the direction of water flow.

3. Vertical Surface Application

- Apply BC PVC 1200 membrane up to at least 300 mm above the finished roof level.
- Fix to parapet walls with BC PVC Bond contact adhesive.
- Terminate edges using aluminum flashing and sealant to ensure watertight finish.

6). Hot Air Welding Techniques

- Overlap: Minimum 50 mm
- Tools: Hand or automatic hot air welders with 20–40 mm nozzles
- Temperature Range: 400 – 600°C depending on site and ambient conditions
- Verification: Perform seam tests after welding (peel and shear) to confirm full fusion.



Testing After Installation

Flood test (minimum 24 hours), Needle test, Vacuum box test.

7). Roll Dimensions

Property	Value
Roll length	20 m
Roll width	2.10 m
Roll weight (approx.)	66 kg

8). Storage and Shelf Life

- Store horizontally on pallets in a cool, dry place (5°C–35°C).
- Protect from direct sunlight and moisture.
- Shelf life: 24 months in original, unopened packaging.

9). Health & Safety

- Use gloves and protective eyewear during handling and welding.
- Ensure adequate ventilation during hot-air welding operations.
- Refer to BC PVC 1200 Safety Data Sheet (SDS) for full safety guidelines.

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.

Building Chemistry Industry
3rd Industrial area Dammam, Kingdom of Saudi Arabia.
Email: info@bcisaudi.com Website: Bci.Saudia

