



Technical Data Sheet

BC PVC 1500-UV

Single Ply UV-Resistant Waterproofing Membrane for Exposed Roofing Systems

1). Product Description

BC PVC 1500-UV is a high-performance, calendared and extruded single-ply PVC waterproofing membrane, 1.5 mm thick, internally reinforced with high-tenacity polyester mesh. It is specially formulated to resist ultraviolet (UV) radiation and harsh weathering, providing long-term durability and dimensional stability.

2). Uses

- Exposed roofing systems
- Re-roofing and roof refurbishment
- Industrial buildings and warehouses
- Commercial and institutional structures

3). Advantages

- UV and Weather Resistant: Excellent resistance to solar radiation, ozone, and environmental pollutants.
- Easy Application: No torching, primers, or solvents needed; quick and safe installation.
- High Flexibility: Maintains elasticity and strength across a wide temperature range.
- Dimensional Stability: Reinforced with polyester mesh to prevent shrinkage and elongation.
- Fire Resistant: Self-extinguishing and compliant with ASTM E108 Class B.
- Chemical Resistance: Withstands acid rain, mild alkalis, and industrial emissions.



4). Technical Data

Property	Test Method	Typical Values
Overall thickness (mm)	ASTM D 751 / D 638	1.5
Breaking strength (N/50 mm)	ASTM D 751	≥ 260
Elongation at break (%) – MD / CMD	ASTM D 638	≥ 260 / ≥ 230
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 or 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
Standard compliance	ASTM D 4434 Type II	Meets



5). Application Instructions

1. Surface Preparation

- Ensure substrate is clean, smooth, and free from sharp edges or debris.
- Install a separation layer (polyethylene sheet or insulation board) over the substrate as required.
- Ensure proper drainage slopes are provided.

2. Membrane Installation

- Position BC PVC 1500-UV membrane over the surface with 50 mm overlap at joints.
- Mechanically fix using approved fasteners and metal strips at 30–40 cm spacing.
- Weld overlaps using hot air welding equipment at 400–600°C depending on site conditions.
- Test welded seams for uniform bonding.

3. Vertical Upturns and Details

- Adhere vertical membranes using BC PVC Bond-106 or equivalent adhesive.
- Fix PVC-coated metal angles and weld double layers at junctions.
- Seal terminations using aluminum flashing and compatible sealant.

6). Hot Air Welding

- Minimum overlap: 50 mm
- Tools: Hand or automatic hot-air welder with 20–40 mm nozzles and roller
- Temperature: 400–600°C depending on ambient conditions
- Seam check: Conduct peel test after welding to verify bond strength

Testing After Installation

- Flood Test (24 hours), Needle Test, Vacuum Box Test





7). Roll Dimensions

Property	Value
Roll length	20 m
Roll width	2.10 m
Roll weight (approx.)	83 kg

8). Shelf Life and Storage

- Store rolls horizontally on pallets in a cool, dry area (5°C – 35°C).
- Protect from direct sunlight and moisture.

Shelf life: 24 months in original packaging.

9). Health & Safety

- Use gloves and eye protection during handling and installation.
- Work in well-ventilated areas when using cleaning solvents.
- Refer to the BC PVC 1500-UV Safety Data Sheet (SDS) for complete 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.

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