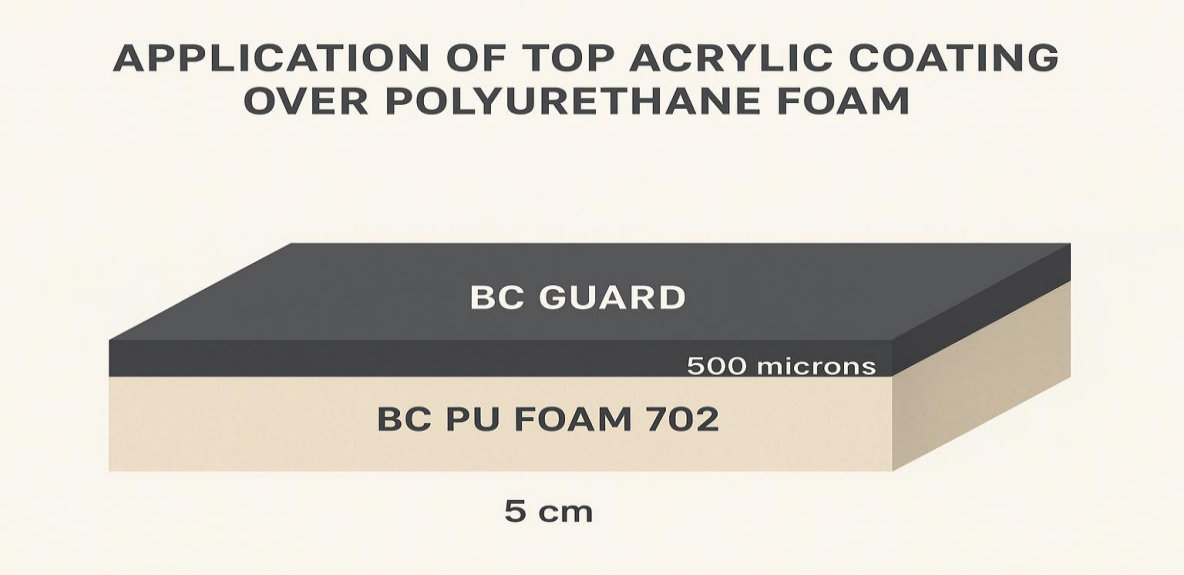
BUILDING CHEMISTRY INDUSTRY

# Method of Statement of BC Guard Top Acrylic Coating over BC PU Foam 702.




## 1. Scope

This Method of Statement describes the procedures, materials, inspection requirements, and safety measures for applying **BC Guard Top Acrylic Coating** over **BC PU Foam 702**. The PU Foam layer is applied to a thickness of **5 cm**, and the top acrylic coating is applied to achieve a **dry film thickness (DFT) of 500 µm**.

This document ensures:

- Proper surface preparation of cured PU Foam.
- Correct mixing and application of BC Guard acrylic coating.
- Compliance with quality standards and manufacturer recommendations.
- Safe and environmentally responsible handling of materials.

## 2. References / Standards

- BCI Technical Data Sheets (TDS) for BC PU Foam 702 and BC Guard
- ASTM D562 – Standard Test Method for Consistency of Paints
- ASTM D4414 – Measurement of Wet Film Thickness by Notch Gages
- ASTM D4587 – Accelerated Weathering of Coatings
- ISO 9001 – Quality Management Systems
- Local Health, Safety, and Environmental Regulations

## 3. Materials and Equipment

### 3.1 Materials

| Material | Description / Specification |
|---|---|
| BC PU Foam 702 | Spray-applied polyurethane foam, 5 cm thickness |
| BC Guard Top Acrylic Coating | Water-based or solvent-based, DFT target 500 µm |

### 3.2 Equipment

- Airless spray system suitable for PU foam and acrylic coatings
- Surface grinders, sanders, or hand tools (for leveling irregularities)
- Wet film thickness gauge
- Dry film thickness gauge / micrometer
- Personal protective equipment (PPE): gloves, goggles, respirator, coveralls
- Mixing equipment (mechanical stirrer or paddle)

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## 4. Surface Preparation

1. **Curing Verification**
    - Ensure BC PU Foam 702 has fully cured (minimum 24–48 hours at 20–25°C; adjust for ambient conditions).
2. **Inspection**
    - Check for irregularities:
        - High spots → sand down to level.
        - Low spots → fill with PU foam patch.
3. **Cleaning**
    - Remove dust, debris, oils, and other contaminants using a dry or slightly damp cloth.
    - Wipe surface with IPA or compatible solvent to enhance adhesion.
4. **Environmental Conditions**
    - Temperature: 15–35°C
    - Relative humidity: <80%
    - Avoid application during rain, dew, or high wind conditions.

## 5. Application Procedure

### Step 1: Primer Application (Optional)

- Apply BC Guard primer only if recommended by TDS.
- Allow drying per manufacturer instructions (typically 1–2 hours).

### Step 2: Mixing

- Stir BC Guard thoroughly using a mechanical stirrer to achieve uniform consistency.
- Inspect for lumps or separation. Do **not** thin unless instructed by TDS.

**Step 3: Top Coat Application**

- Apply BC Guard acrylic coating using airless spray, roller, or brush.
- Target **wet film thickness (WFT)**: 500–600 µm to achieve **DFT of 500 µm**.
- Multiple passes (2–3) may be required.
- Allow flash-off time between coats: 30–60 minutes (temperature and humidity dependent).

**Step 4: Intermediate Inspection**

- Check WFT using a wet film gauge after each coat.
- Ensure uniform coverage with no pinholes, holidays, sagging, or pooling.

**6. Curing**

- Ambient curing: 24–48 hours.
- Full mechanical and chemical resistance: 7 days.
- Avoid contact or stress during curing period.

**7. Quality Control / Inspection**

| Parameter | Method | Acceptance Criteria |
|---|---|---|
| Surface cleanliness | Visual inspection | Free of dust, oil, debris |
| PU Foam thickness | Measuring tape / caliper | 5 cm ± 2 mm |
| Wet film thickness | Wet film gauge | 500–600 µm |
| Dry film thickness | Micrometer / gauge | 500 µm ± 50 µm |
| Adhesion | Cross-cut or pull-off test | ≥2 MPa or per TDS |

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## 8. Safety Precautions

- Always wear PPE: gloves, goggles, respirator, and coveralls.
- Ensure adequate ventilation.
- Follow Material Safety Data Sheet (MSDS) instructions for all chemicals.
- Avoid direct skin contact or inhalation of aerosols.
- Keep fire extinguishers nearby if using solvent-based coatings.

## 9. Waste Management

- Collect leftover materials, rags, and cleaning solvents in designated containers.
- Dispose according to local environmental regulations.
- Avoid discharge into drains or open environment.