



POLYURETHANES

Expansion Joint Specification SG PU Flex20

2024



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Safeguard Polyurethane Expansion Joint Waterproofing System**1. Scope of Works**

This method statement describes the installation of Safeguard polyurethane (PU) expansion joint waterproofing systems for use in concrete and masonry substrates where movement is anticipated, including but not limited to podium slabs, roofs, basements, façades and structural joints.

2. Materials

Safeguard-approved polyurethane joint sealant – SG PU Flex 20, suitable for high-movement applications
Compatible primer, where required

Safeguard backing cord (compressible, non-absorbent)

Masking tape

Cleaning solvents and tools as recommended by the manufacturer

All materials shall be supplied by Safeguard Chemicals or approved equal and used in accordance with the manufacturer's current technical data sheets.

3. Substrate Preparation

Joint surfaces shall be sound, dry, clean, and free of dust, laitance, oil, curing compounds and loose material.

Joint edges shall be straight, continuous and free from spalling or defects.

Any damaged concrete or masonry shall be repaired and allowed to cure prior to sealant installation.

Substrate moisture content shall be within the recommended limits not more than 5%.

4. Priming (Where Required) – applicable only to SG Inverted Pinnacle System – 40mm & wider joints

Apply Safeguard-approved PU 720 primer to joint faces where specified or where substrates require enhanced adhesion.

Primer shall be applied evenly and allowed to cure in accordance with manufacturer instructions prior to sealant application.

5. Membrane Application – applicable only to SG Inverted Pinnacle System – 40mm & wider joints Apply 1 coat of Safeguard PU280 into joint & side walls overlap – 10cms either side & embed Safeguard membrane. Apply 2nd coat of PU280 over fabric & allow to cure.

6. Joint Configuration

Joint width and depth shall be designed to accommodate anticipated movement and shall comply with the sealant's movement capability – 25%.

Install Safeguard backing cord to control sealant depth and prevent three-sided adhesion.

Backing cord size shall be selected to provide a snug fit without compression beyond manufacturers recommendations.

7. Sealant Application

Apply Safeguard polyurethane sealant SG PU Flex 20 using appropriate dispensing equipment to ensure continuous, void-free filling of the joint.

Sealant shall be applied in a single operation where possible.

Tool the sealant to ensure full contact with joint faces and to achieve the specified joint profile.

Avoid air entrapment, overworking or contamination during application.



METHOD STATEMENT Contd

Safeguard Polyurethane Expansion Joint Waterproofing System

8. Finishing and Protection

Masking tape shall be removed immediately after tooling to achieve clean joint edges. Installed sealant shall be protected from traffic, water exposure, dust and mechanical damage until fully cured.

Curing times shall comply with manufacturer recommendations and site environmental conditions.

9. Integration with Waterproofing Systems Application of PU440 - Safeguard Inverted Pinnacle System will be utilised on Polyurethane Waterproofing.

Apply 1 coat of PU 440 over PU Flex20. Embed membrane. Apply 2nd coat of PU440 over membrane. This system maintains uninterrupted waterproofing performance across the joint.

NB. Where expansion joints interface with adjacent waterproofing membranes, ensure compatibility and continuity between the joint sealant and membrane system. .

10. Quality Control

Works shall be carried out by trained and approved applicators experienced in polyurethane sealant installation.

Joint dimensions, adhesion, and finish shall be inspected during and after installation.

Any defective or non-compliant work shall be removed and replaced in accordance with manufacturer recommendations.

11. Health, Safety & Environmental Considerations

All works shall comply with applicable site health and safety regulations.

Personnel shall use appropriate PPE, including gloves and eye protection.

Ensure adequate ventilation during application.

Dispose of waste materials in accordance with local environmental regulations.

12. Warranty & Support

Where specified, Safeguard Chemicals shall provide:

System-specific warranty (subject to compliance with specification and method statement)

Technical support during design and installation stages

Site inspection or guidance when required

13. References

Manufacturer technical data sheets

Project specifications

Relevant SANS / ASTM / EN standards where applicable

