

ANCILLARY · ENGINEERING SPECIFICATION

Adhesives & Sealants

This specification covers a two-product EPS-bonding accessory line — DB Acrylic Sealant (a one-part acrylic-dispersion cornice/joint sealant) and PU6 (a two-component solvent-free polyurethane/MDI panel adhesive) — neither of which is an insulation material.

Verified technical data

Property	Value	Standard
Product build-up	DB Acrylic Sealant (one-part white acrylic dispersion, cures to soft plastic-elastic rubber) + PU6 (two-part solvent-free polyurethane / MDI adhesive)	—
PU6 bond tensile strength	8–10 MPa (at 25 °C)	—
PU6 component density (mass per litre, liquid)	Part A 1.62; Part B 1.23 kg/L	—
PU6 service temperature / heat resistance	–40 to +50 service; bond heat-resistant to 148 short-term; stays flexible to –45 °C	—
PU6 mixing ratio & spread rate	6:1 by weight (4.5:1 by volume); apply 300–400 g/m ² to one bonding surface	—
PU6 pot life & cure	Pot life 20–30 min (20 °C, 50% RH); clamp within 20 min for min. 4 h; full cure 7 days at 25 °C	—
Reaction-to-fire / fire-resistance class	None — no Euroclass or REI rating of its own; mixed PU6 rated non-combustible / non-hazardous for shipping only	—
Pack sizes & coverage	PU6 combination packs 6 / 36 / 300 kg; DB 280 ml cartridge & 5 kg pail (5 kg ≈ 50 m / 20 cornice lengths)	—
Applicable product standard / handling	None cited (no SANS/EN). PU6 Part B is an MDI isocyanate — GHS 'Danger', respiratory & skin sensitiser (follow SDS)	GHS

Scope

- 1.0** This specification covers the supply and use of Technopol's Adhesives & Sealants line: DB Acrylic Sealant and the PU6 two-component polyurethane adhesive.
- 2.0** It excludes any thermal-insulation function; no thermal conductivity (λ), R-value, U-value, density-grade or compressive-strength rating applies to either product.
- 3.0** It excludes panel-style dimensional data (cover width, thickness range, tolerances, span/load tables), as both products are sold by mass or cartridge volume.
- 4.0** Where these adhesives are incorporated into an EPS assembly, the performance and fire behaviour of that assembly are governed by the panel/board system's own specification and test evidence, not by this specification.

Materials

- 5.0** DB Acrylic Sealant shall be a one-part, white sealant based on an acrylic dispersion, curing physically by evaporation of its water phase to a soft, plastic-elastic, non-corrosive, over-paintable rubber.
- 6.0** PU6 shall be a two-component, solvent-free polyurethane adhesive curing by a poly-isocyanate/MDI reaction.
- 7.0** PU6 Part A shall be a light straw-coloured, high-viscosity liquid of vegetable-oil triglycerides (castor oil) with a limestone (CaCO_3) filler, classified non-hazardous.
- 8.0** PU6 Part B shall be diphenylmethane diisocyanate (MDI), grade "Cosmonate M-200".
- 9.0** Mixed PU6 shall be a thixotropic, free-flowing straw-coloured syrup that cures dimensionally stable with no shrinkage and water resistance once set.

Performance

- 10.0** PU6 shall develop a bond tensile strength of 8-10 MPa at 25 °C, as quoted from the manufacturer technical datasheet.
- 11.0** PU6 component densities are liquid-component (uncured) mass per litre: Part A 1.62 kg/L; Part B 1.23 kg/L; no cured-solid density is published for either product.
- 12.0** PU6 service-temperature limits shall be –40 to +50 °C, with short-term bond heat resistance to 148 °C and no low-temperature embrittlement at –45 °C.
- 13.0** PU6 shall be mixed at 6:1 by weight (4.5:1 by volume) and applied at 300-400 g/m² to one bonding surface only.
- 14.0** PU6 pot life shall be 20-30 min at 20 °C and 50% RH; clamp within 20 min and hold a minimum of 4 h; solidification ≈ 4 h and full cure 7 days at 25 °C; minimum cure temperature 5 °C.
- 15.0** No thermal (λ /R/U), density-grade or compressive-strength performance is established for either product; these are bonding products, not insulation, and such data shall not be attributed to them.
- 16.0** For DB Acrylic Sealant, only base composition, cured finish and coverage are established; specific gravity/density, VOC content, skin/tack-free and full-cure times, service-temperature range, movement/elongation capability, joint-width range and shelf life are not published.

Fire

- 17.0** Neither product carries a reaction-to-fire (Euroclass) classification, and neither carries a fire-resistance (REI, minutes) rating.
- 18.0** The mixed PU6 adhesive is described as "non-combustible, non-hazardous" for shipping-classification purposes only; this is a transport/handling descriptor, not a tested reaction-to-fire class and not a fire-resistance rating.
- 19.0** PU6 Part A MSDS flammability data (flash point 229 °C closed cup; auto-ignition 449 °C) are safety-data figures, not a fire class.
- 20.0** The corpus EPS fire-test reports (FireTestresults / FTC-FT series) cover EPS boards and panels only and shall not be cited as evidence of any fire class for the adhesive or sealant.
- 21.0** Fire performance of any assembly incorporating these adhesives shall be established from the surrounding panel/board system's own tested fire evidence.

Execution / installation

22.0 Ensure lamination surfaces are free of oil, dust and moisture; degrease galvanised iron and GRP to remove all wax/oil before bonding.

23.0 Agitate/stir PU6 Part A thoroughly before decanting to obtain consistent gel times.

24.0 Mix PU6 Part A and Part B strictly at 6:1 by weight for approximately 2 minutes to a homogeneous light-brown mixture, using a separate container and not decanting A and B with the same measuring device.

25.0 Apply PU6 at 300-400 g/m² to one bonding surface only; when bonding styrene to another substrate, apply the adhesive to the non-styrene substrate.

26.0 Apply clamping pressure within 20 minutes of mixing and hold for a minimum of 4 hours.

27.0 Do not apply PU6 below 5 °C (curing greatly extended below 10 °C); protect Part B from freezing and warm gently in hot water if it crystallises.

28.0 DB Acrylic Sealant shall be applied from cartridge or pail, tooled, and allowed to cure by water evaporation; over-paint with water-based paints only.

29.0 PU6 Part B is an MDI isocyanate classified GHS DANGER (H315/H317/H319/H332/H334; Carc. Cat. 2, Resp. Sens. Cat. 1, Skin Sens. Cat. 1); handle with isocyanate-appropriate PPE and ventilation per the SDS. Part A is non-hazardous.

Standards & compliance

30.0 No SANS or EN product standard is cited for either the DB sealant or PU6 in any Technopol document.

31.0 No Agrément South Africa certificate applies to this adhesive/sealant line; Agrément SA 2020/609 covers the LiteCore Building System only and shall not be presented as covering these adhesives or Technopol generally.

32.0 Company-level certification (context only, not a product certificate for this line): per the dossier body ISO 9001:2015 is current while ISO 14001 and ISO 45001 lapsed in March 2026 — see specifier notes for an unresolved contradiction on the ISO 9001 status.

33.0 Any ISO/TIPSASA/Agrément logos on brochure footers are company or other-product marks, not a product certificate for the adhesives.

34.0 PU6 Part B is regulated as an MDI isocyanate; handling is governed by its GHS/SDS classification.

Specifier's notes — not established in Technopol sources.

- Thermal conductivity (λ), R-value and U-value are not established/not applicable — these are bonding products, not insulation; obtain no thermal rating from this product line.
- Cured-solid density is not published for either product; only PU6 uncured liquid-component mass per litre exists (Part A 1.62, Part B 1.23 kg/L). DB sealant density/specific gravity is not stated anywhere — obtain externally if required.
- Compressive strength is not published (it is an EPS-panel property, not an adhesive property); the only strength figure is PU6 bond tensile strength 8-10 MPa at 25 °C.

- No reaction-to-fire Euroclass or fire-resistance (REI) class with a test report number exists for the adhesive line — treat as having no fire class and obtain fire evidence from the surrounding assembly.
- No independent laboratory report number substantiates the PU6 8-10 MPa bond tensile strength; the value appears only on the manufacturer datasheet and the brochure's "lab-tested" claim carries no report reference — obtain independent verification externally if required.
- No Agrément SA certificate specific to the adhesive/sealant exists; 2020/609 covers the LiteCore Building System only.
- No applicable SANS/EN product standard number is cited for either product in any Technopol document — obtain the governing standard externally if one is required.
- No standalone DB Acrylic Sealant technical datasheet is located; DB VOC content, specific gravity, skin/tack-free time, full-cure time, service-temperature range, shelf life, elongation/movement capability and joint-width range are all unpublished — obtain externally.
- Unresolved contradiction — DB pail net weight: the current web brochure states a 5 kg pail while the "Bonding Beyond Boundaries" marketing sheet labels it 4 kg (280 ml | 4 kg); the spec table adopts 5 kg but the true current pail size cannot be resolved from the documents.
- PU6 cured-solid mechanical/thermal data beyond bond tensile strength (shear strength, peel strength, hardness, glue-line thermal conductivity) are not published — obtain externally if required.
- Unresolved contradiction — PU6 shipping descriptor vs chemistry: the datasheet calls the mixed adhesive "non-combustible, non-hazardous" (a shipping classification) whereas Part B's SDS classifies it GHS "Danger" (isocyanate, harmful by inhalation, sensitiser); the "non-hazardous" label applies to the mixed/cured shipping context only and does not override the Part B handling hazards.
- Unresolved contradiction — ISO 9001 status: the dossier body states ISO 9001:2015 is current, but a verification note flags the primary ISO 9001:2015 certificate PDF as lapsed; the company-level ISO position is therefore unconfirmed and must be verified externally, not presented as a product certificate for this line.
- The manufacturer disclaims fitness for a specific use — the PU6 datasheet data do not relieve the user from their own testing; verify performance for the actual substrate and conditions.