SYNUTHANE

Building Materials Catalog

Waterproofing · Sealing · Insulation · Protection

- **SYNUROOF** — Structural Roofing & Protection Systems
- **SYNUCOAT** — Liquid Waterproofing Membranes & Joint Sealants
- **SYNUPROOF** — High-Performance Polyurea & Polyurethane Systems

About Synuthane

Synuthane is a specialist manufacturer of waterproofing, joint sealing, insulation, and protective coating systems for the construction industry. Our materials are engineered for the extreme climatic conditions of the GCC and Middle East — from intense UV exposure and thermal cycling to aggressive ground salts and high hydrostatic pressure.

Products are organised across three focused brand families — **SYNUROOF** (structural protection accessories), **SYNUCOAT** (liquid waterproofing and sealants), and **SYNUPROOF** (polyurea and polyurethane systems) — each supported by full Technical Data Sheets and Safety Data Sheets for use in consultant specifications and project submissions.

BRAND	TECHNOLOGY	PRODUCTS	KEY STANDARD
SYNUROOF	Structural Roofing & Protection Systems	4	ASTM C591
SYNUCOAT	Liquid Waterproofing Membranes & Joint Sealants	7	BS EN 1504-2
SYNUPROOF	High-Performance Polyurea & Polyurethane Systems	4	BS EN 1504-2

PRODUCT FAMILY

SYNUROOF

4 Products in this family

Structural Roofing & Protection Systems

The SYNUROOF family provides structural protection and accessory materials for roofing and below-grade assemblies. Every product is engineered for the extreme UV exposure, thermal cycling, and humidity conditions of the GCC and Middle East region.

2G345

Spray Foam

Two-component closed-cell polyurethane insulation foam

SYNUROOF
2G345

SYNUROOF 2G345 is a two-component, spray-applied, closed-cell polyurethane foam system for thermal insulation and void filling on roofing substrates. Upon application, the foam expands rapidly to fill cavities, bonds tenaciously to concrete, masonry, and metal, and cures to a rigid, moisture-resistant thermal barrier impermeable to water vapour.

SURFACE PREPARATION

Surface must be structurally sound, clean, dry, and free of oil, grease, loose particles, and standing water. Metal substrates should be abraded and primed with SYNUPROOF 2KPrim epoxy primer. Minimum substrate temperature 5°C; maximum 40°C.

APPLICATION METHOD

Apply using a heated, proportioning spray machine (ratio 1:1 by volume, A+B). Spray in multiple passes of 10–15 mm to achieve the specified thickness. Allow each pass to cure (approx. 10–15 min) before applying the next. Protect foam from UV with an acrylic or polyurea topcoat within 72 hours.

KEY FEATURES

- Closed-cell structure — <2% water absorption
- Compressive strength ≥150 kPa
- Rapid cure — trafficable in <30 min
- Thermal conductivity λ ≤ 0.024 W/m
- K
- Zero ODP formulation

FIELDS OF APPLICATION

- Roof deck insulation
- Cavity and void filling
- Pipe insulation
- Cold-storage facilities
- Under-slab insulation
- Metal roof overcoating

TECHNICAL DATA

Components	2-part (A+B), 1:1 by volume
Density	35–45 kg/m³ (free-rise)
Compressive Strength	≥150 kPa (ASTM D1621)
Thermal Conductivity	0.022–0.024 W/m·K
Closed Cell Content	>95%
Application Temp.	+5°C to +40°C
Coverage	~1.0 m² per kg at 50 mm thickness
Pack Size	200 L drum set (A+B)
STANDARDS & COMPLIANCE	ASTM C591 · ASTM D1621 · BS EN 14315

Technical Data Sheets and Safety Data Sheets available on request from your Synuthane representative.

G100

Geo Textile

Needle-punched non-woven polypropylene geotextile

SYNUROOF
G100

SYNUROOF G100 is a continuous-filament, needle-punched non-woven polypropylene geotextile for separation, filtration, protection, and drainage in civil engineering and waterproofing systems. Its uniform structure provides consistent mechanical performance and resistance to chemical attack in aggressive soil environments, making it the ideal protection layer over waterproofing membranes.

SURFACE PREPARATION

The substrate surface should be clean and free of sharp protrusions or objects that could puncture the geotextile during installation. Overlap adjacent rolls a minimum of 300 mm. Secure edges with appropriate fixings or overburden.

APPLICATION METHOD

Unroll directly onto the prepared substrate or membrane. Maintain constant tension to avoid wrinkles. For protection layer applications, place G100 immediately after the membrane has achieved sufficient cure to withstand foot traffic. Cover with protection board or backfill as soon as practicable.

KEY FEATURES

- High puncture resistance (≥1000 N)
- UV stabilised
- Chemically inert — pH 2 to 13
- Compatible with bituminous and PU membranes
- Available in 150, 200, 300, 500 gsm

FIELDS OF APPLICATION

- Membrane protection layer
- Drainage composites
- Road sub-base separation
- Retaining wall filtration
- Green roof build-ups
- Erosion control

TECHNICAL DATA

Mass per Unit Area	150–500 g/m² (EN 965)
Tensile Strength (MD/CD)	≥8/6 kN/m (EN ISO 10319)
CBR Puncture Resistance	≥1000 N (EN ISO 12236)
Water Permeability	≥10 × 10■³ m/s (EN ISO 11058)
UV Resistance	≥70% strength retention after 500h
Roll Dimensions	2.0 m × 50 m (standard)
Coverage	100 m² per roll
Pack Size	Roll, heat-sealed packaging
STANDARDS & COMPLIANCE	EN 13252 · EN 13257 · ASTM D4751

F100

Filler Board

Bitumen-impregnated compressible expansion joint board

SYNUROOF
F100

SYNUROOF F100 is a non-extruding, pre-formed expansion joint filler board manufactured from bitumen-impregnated cellulose fibre. Designed to accommodate structural movement in concrete slabs, walls, and pavements, the board compresses under load and recovers upon release — maintaining a tight, water-excluding joint fill throughout the structure's service life.

SURFACE PREPARATION

Joint faces must be clean, sound, and free of loose material. For sawcut joints, remove all sawing dust before installation. Position the filler board centrally in the joint and secure with temporary nails or adhesive if required. Allow 10 mm clearance below slab soffit for sealant recess.

APPLICATION METHOD

Cut board to the required width and depth using a sharp knife or saw. Press firmly into the joint, ensuring full contact with both joint faces. For joints exceeding 25 mm in depth, stack boards as required. Apply joint sealant (SYNUCOAT 1PUS or 2KPS) over the filler board as a final weatherproof seal.

KEY FEATURES

- Non-extruding under compressive load
- Self-recovering after load release
- Resistant to water, soil chemicals & freeze-thaw
- Compatible with all joint sealants
- Sizes: 10, 12, 18, 25 mm thickness

FIELDS OF APPLICATION

- Concrete slab expansion joints
- Bridge deck movement joints
- Pavement & carriageway joints
- Basement wall joints
- Precast structure joints

TECHNICAL DATA

Thickness	10, 12, 18, 25 mm
Standard Board Size	2400 × 100 mm
Compression (ASTM D1751)	≥50% without extrusion
Recovery	≥70% after 50% compression
Water Absorption	<5% by volume
Temperature Range	–20°C to +80°C
Coverage	50 boards per bundle
Pack Size	Bundle (50 pcs)
STANDARDS & COMPLIANCE	ASTM D1751 · BS EN 14188

B100

Baker Rod

Closed-cell polyethylene backer rod for joint sealing

SYNUROOF
B100

SYNUROOF B100 is a closed-cell expanded polyethylene backer rod that controls sealant depth and geometry (2:1 width-to-depth ratio) in expansion and construction joints. Its closed-cell structure prevents sealant absorption and provides a consistent bond-breaking backing surface that promotes the correct sealant hourglass profile under movement.

SURFACE PREPARATION

Ensure joint faces are clean and dry. Select a backer rod diameter 25–33% larger than the joint width to ensure a friction fit. Never use adhesive to fix backer rods — they must remain free to move with the joint.

APPLICATION METHOD

Press the rod into the joint to the required depth using a blunt tool (roller or flat blade). Do not pierce or damage the rod. The top surface of the rod should be set back from the surface by the specified sealant depth (typically 6–10 mm). Apply sealant immediately after rod installation.

KEY FEATURES

- Closed-cell — zero sealant absorption
- Bond-breaker function ensuring correct sealant profile
- Stable –40°C to +80°C
- Compatible with PU, polysulphide, and silicone
- Soft and compressible for easy installation

FIELDS OF APPLICATION

- Concrete and masonry expansion joints
- Curtain wall perimeter sealing
- Pre-cast element joints
- Podium and plaza deck joints
- Facade control joints

TECHNICAL DATA

Diameters Available	6, 10, 12, 15, 20, 25, 30, 40, 50 mm
Cell Structure	Closed cell (no sealant absorption)
Density	25–35 kg/m³
Compressibility	>50% without rupture
Temperature Range	–40°C to +80°C
Roll Lengths	50 m and 100 m
Coverage	Per linear metre
Pack Size	50 m or 100 m roll
STANDARDS & COMPLIANCE	ASTM C1330

PRODUCT FAMILY

SYNUCOAT

7 Products in this family

Liquid Waterproofing Membranes & Joint Sealants

SYNUCOAT is the comprehensive liquid-applied waterproofing and joint sealing range — spanning cementitious slurries, acrylic coatings, bituminous emulsions, polyurethane membranes, and polysulphide sealants. Formulated specifically for the GCC climate.

CA40

Cementitious Acrylic Coating

Two-component flexible cementitious waterproofing slurry

SYNUCOAT
CA40

SYNUCOAT CA40 is a two-part, acrylic polymer-modified cementitious waterproofing coating. The cement powder (Part A) and acrylic emulsion (Part B), when mixed on-site, form a flexible, crack-bridging membrane with excellent adhesion to concrete, masonry, and blockwork. Approved for potable water contact. Suitable for both positive and negative-side waterproofing applications.

SURFACE PREPARATION

The surface must be structurally sound and free of oil, grease, dust, and loose material. Repair cracks and potholes with a suitable cementitious repair mortar. Pre-saturate concrete with water before application — the surface should be damp but with no standing water. Prime smooth non-porous surfaces with diluted CA40 (1:1 with water).

APPLICATION METHOD

Mix Part A into Part B using a slow-speed drill (300–400 rpm) to a smooth, lump-free consistency. Do not add water. Apply in two coats at 1.8 kg/m² per coat. Embed glass-fibre mesh at all corners and joints in the first wet coat. Allow first coat to dry (6–8 hours at 25°C / 50% RH) before applying second coat. Minimum 72 hours cure before water contact.

KEY FEATURES

- Non-toxic — approved for potable water contact
- Crack-bridging up to 0.3 mm
- Applicable on damp (not wet) surfaces
- Hydrostatic resistance up to 7 bar (negative side)
- Factory-batched to eliminate on-site variation
- Two-coat system — 2 mm minimum DFT

FIELDS OF APPLICATION

- Potable & non-potable water tanks
- Basement slabs and walls
- Lift pits
- Swimming pools
- Wet areas — bathrooms, kitchens, balconies
- Pile heads
- Anti-carbonation protection of concrete

TECHNICAL DATA

Components	2-part (powder + acrylic emulsion)
Mix Ratio	3:1 powder to liquid by weight
Pot Life	~30–45 min at 25°C
Application Rate	1.8 kg/m² per coat (1 mm DFT)
Drying Time (coat to coat)	6–8 hours at 25°C / 50% RH
Full Cure	72 hours minimum
Hydrostatic Resistance	Up to 7 bar (negative side)
Pack Size	20 kg set
STANDARDS & COMPLIANCE	BS EN 1504-2 · ASTM C836 · Potable water approved

AC100

Acrylic Coating

Elastomeric single-component acrylic roof membrane

SYNUCOAT
AC100

SYNUCOAT AC100 is a single-component, water-based, elastomeric acrylic coating for roof waterproofing and facade protection. It cures by water evaporation to a seamless, high-elongation membrane with outstanding UV resistance. The white formulation provides solar reflectance benefits that reduce roof surface temperatures by up to 20°C in GCC climates, contributing to LEED v4 compliance.

SURFACE PREPARATION

Surface must be clean, sound, and free of dust, laitance, oil, and loose material. Fill cracks wider than 0.5 mm with SYNUCOAT 1PUS sealant. Apply SYNUCOAT AC100 diluted 10% with water as a primer coat on highly porous substrates. Metal substrates require rust treatment and priming.

APPLICATION METHOD

Stir well before use. Apply by roller, brush, or airless spray in a minimum of two coats. Allow first coat to dry fully (4–6 hours at 25°C) before applying second coat at 90° to the first. For trafficked areas, embed polyester fleece in the first wet coat. Minimum 500 µm DFT per coat.

KEY FEATURES

- Elongation >300% (ASTM D412)
- Solar-reflective white — SRI ≥90
- UV and ozone resistant
- VOC compliant (LEED v4 EQ credit)
- Single-component — no mixing
- Breathable — allows vapour transmission

FIELDS OF APPLICATION

- Flat and sloped concrete roofs
- Metal profile roofs
- Facades and parapet walls
- Balconies
- Repair overcoating of existing bituminous or acrylic systems

TECHNICAL DATA

Components	Single component, ready to use
Elongation at Break	>300% (ASTM D412)
Tensile Strength	>1.2 MPa
Solar Reflectance Index (SRI)	≥90 (white)
Application Rate	1.5–2.0 kg/m² per coat
Drying Time (coat to coat)	4–6 hours at 25°C
Full Cure	7 days
Pack Size	20 kg pail / 200 kg drum
STANDARDS & COMPLIANCE	ASTM D6083 · BS 6213 · LEED v4 EQ Credit

RB100

Rubberized Bitumen

Cold-applied elastomeric bitumen waterproofing emulsion

SYNUCOAT
RB100

SYNUCOAT RB100 is a cold-applied, solvent-free, rubber-modified bitumen emulsion providing a seamless, flexible waterproofing membrane. The rubber modification delivers superior elongation and crack-bridging compared to plain bitumen emulsions, maintaining adhesion and flexibility across the wide temperature range experienced in GCC construction from deep basements to exposed roof decks.

SURFACE PREPARATION

Surface must be sound and free of loose material, standing water, and organic growth. Concrete must be cured a minimum of 28 days. Apply a bitumen primer or SYNUCOAT RB100 diluted 1:1 with water to porous surfaces and allow to dry. Cold weather application below 5°C is not recommended.

APPLICATION METHOD

Stir well. Apply by brush, roller, or airless spray in two coats at 0.8–1.0 kg/m² per coat. For below-grade applications, embed SYNUROOF G100 geotextile in the first coat while still wet for reinforcement. Allow full drying (black, uniform appearance) between coats — typically 4–8 hours depending on temperature.

KEY FEATURES

- Elongation >200% at break
- Solvent-free — low VOC
- Good adhesion to green concrete (≥7 days old)
- Brush, roller, or airless spray application
- Compatible with geotextile and drainage composites

FIELDS OF APPLICATION

- Below-grade foundations & retaining walls
- Podium and terrace decks
- Bridge decks
- Pre-cast concrete elements
- Under-tile tanking
- Planter box waterproofing

TECHNICAL DATA

Components	Single component, water-based emulsion
Elongation at Break	>200%
Application Rate	0.8–1.0 kg/m² per coat
Drying Time (coat to coat)	4–8 hours at 25°C
Full Cure	5–7 days
Minimum Application Temp.	+5°C
Coverage	~0.9 m² per kg (single coat)
Pack Size	20 kg / 200 kg drum
STANDARDS & COMPLIANCE	ASTM D1227 · CGSB 37-GP-6M

2KP100

2-Component PU Coating

High-build two-part polyurethane waterproofing membrane

SYNUCOAT
2KP100

SYNUCOAT 2KP100 is a two-component, solvent-free polyurethane waterproofing membrane providing a seamless, high-elongation, abrasion-resistant coating for exposed and trafficked roof decks. Mixed at the point of application, the isocyanate (Part A) and polyol (Part B) react to form a tough, durable membrane capable of accommodating dynamic structural movement.

SURFACE PREPARATION

Prime all concrete substrates with SYNUPROOF 2KPrim epoxy primer. Allow primer to reach tack-free state (6–12 hours) before applying membrane. Fill all cracks >0.3 mm and honeycombed areas. Substrate moisture content must be <4%. Ensure all surface temperature and humidity conditions are within application limits.

APPLICATION METHOD

Mix Part A into Part B at the stated ratio (by weight) for 3 minutes using a slow-speed drill with paddle mixer. Apply within pot life (30–45 min at 25°C) by notched squeegee or roller at 1 kg/m² per coat. Apply in two coats for minimum 2 mm DFT. Topcoat with SYNUPROOF 2KP101 aliphatic topcoat for UV protection.

KEY FEATURES

- Elongation >450%
- Solvent-free — no odour hazard
- Crack-bridging >2 mm
- Shore A hardness adjustable (30–70)
- UV-stable with aliphatic topcoat
- Pot life ~30–45 min at 25°C

FIELDS OF APPLICATION

- Podium and plaza decks (pedestrian trafficked)
- Car park decks
- Roof gardens
- Balconies
- Water features
- Secondary containment bunds

TECHNICAL DATA

Components	2-part (A+B)
Mix Ratio	Per product datasheet (by weight)
Elongation at Break	>450% (ISO 527)
Tensile Strength	>3.5 MPa
Pot Life	30–45 min at 25°C
Tack-Free Time	6–8 hours at 25°C
Application Rate	1.0 kg/m² per mm DFT
Pack Size	15 kg set (A+B)
STANDARDS & COMPLIANCE	ASTM C836 · EN 14891 · ISO 527

1KP100

1-Component PU Coating

Moisture-curing single-part polyurethane membrane

SYNUCOAT
1KP100

SYNUCOAT 1KP100 is a single-component, moisture-curing polyurethane waterproofing coating that cures by reaction with atmospheric humidity to form a flexible, seamless membrane. Ready to use directly from the container, it is especially suited to detail work, perimeter upstands, pipe penetrations, and maintenance applications where two-component mixing is impractical.

SURFACE PREPARATION

Surface must be clean, dry, and structurally sound. For concrete, apply SYNUPROOF 2KPrim epoxy primer on smooth or dense surfaces to improve adhesion. For metal, remove all rust and apply appropriate metal primer. Minimum substrate temperature 5°C; relative humidity must be >40% for adequate moisture cure.

APPLICATION METHOD

Apply by brush, roller, or airless spray in a minimum of two coats at 0.8–1.0 kg/m² per coat. Allow first coat to become tack-free (4–6 hours at 25°C / 50% RH) before applying second coat. Overcoat with SYNUPROOF 2KP101 aliphatic topcoat for exposed areas requiring UV resistance.

KEY FEATURES

- No mixing — reduces application error
- Elongation >250%
- Adheres to concrete, metal, timber
- Tack-free in 4–6 hours at 25°C / 50% RH
- Overcoatable with acrylic or aliphatic PU topcoat

FIELDS OF APPLICATION

- Roof parapets and upstands
- Gutters and drainage channels
- Balcony waterproofing
- Pipe and service penetration sealing
- Repair and maintenance of existing membranes

TECHNICAL DATA

Components	Single component, moisture-curing
Elongation at Break	>250%
Tensile Strength	>2.5 MPa
Tack-Free Time	4–6 hours at 25°C / 50% RH
Full Cure	5–7 days (RH dependent)
Application Rate	0.8–1.0 kg/m² per coat
Minimum Relative Humidity	40% for cure
Pack Size	20 kg drum
STANDARDS & COMPLIANCE	ASTM C836 · EN 14891

1PUS

1-Component PU Sealant

Gun-grade moisture-curing polyurethane joint sealant

SYNUCOAT
1PUS

SYNUCOAT 1PUS is a one-part, gun-applied, moisture-curing polyurethane joint sealant supplied in 600 mL sausage cartridges. It cures to a durable, paintable elastomer that accommodates cyclic joint movement and bonds strongly to concrete, masonry, metal, and timber without primer on most porous substrates. Ideal for construction and perimeter sealing in facades, windows, and paving.

SURFACE PREPARATION

Joint faces must be clean, dry, and free of dust, oil, grease, and old sealant. Install SYNUROOF B100 backer rod at correct depth (joint depth = ½ joint width). Prime smooth, non-porous substrates (glass, anodised aluminium, powder-coated metal) with appropriate adhesion primer. Mask joint edges for a clean finish.

APPLICATION METHOD

Load sausage into a professional sealant gun. Apply sealant in a continuous bead, ensuring full contact with both joint faces. Tool immediately to a smooth concave profile using a wetted spatula. Remove masking tape before surface skin forms (typically 30–60 min). Joint width-to-depth ratio 2:1 is essential.

KEY FEATURES

- Paintable after cure
- Movement accommodation ±25% of joint width
- Shore A hardness 35–40 after cure
- Excellent adhesion to concrete, brick, mortar, aluminium
- Low odour during application

FIELDS OF APPLICATION

- Building perimeter and expansion joints
- Window and door frame sealing
- Facade control joints
- Pre-cast element joints
- Interior sanitary sealing

TECHNICAL DATA

Components	Single component, moisture-curing
Movement Accommodation	±25% (ISO 11600 F-25LM)
Shore A Hardness	35–40 (after full cure)
Skin-Over Time	30–60 min at 25°C / 50% RH
Full Cure	~7 days at 25°C / 50% RH
Application Temperature	+5°C to +40°C
Coverage (10×10mm joint)	~6 LM per 600 mL cartridge
Pack Size	600 mL sausage (box of 20)
STANDARDS & COMPLIANCE	ISO 11600-F-25LM · ASTM C920 Type S, Grade NS

2KPS

2-Component Polysulphide Sealant

Chemical & fuel-resistant two-part joint sealant

SYNUCOAT
2KPS

SYNUCOAT 2KPS is a two-part polysulphide joint sealant that cures to a tough, resilient elastomer with outstanding resistance to water, jet fuels, mineral oils, and chemical solutions. Its immersible cure makes it the definitive choice for water-retaining structures, fuel storage facilities, and joints subject to continuous liquid contact or regular chemical wash-down.

SURFACE PREPARATION

Joint faces must be clean, dry, and primed with a suitable polysulphide primer. For immersed applications, primer is mandatory on all substrates. Install backer rod to control sealant depth. Minimum joint width 6 mm; minimum depth 6 mm. Ensure joint width-to-depth ratio of 2:1.

APPLICATION METHOD

Mix base and accelerator at the stated ratio (10:1 by weight) using a slow-speed drill for 3–4 minutes until fully homogeneous. Apply by sealant gun within pot life. Tool to smooth concave profile. Do not apply in rain or when substrate temperature is below 5°C or above 40°C.

KEY FEATURES

- Outstanding fuel and chemical resistance
- Fully immersible when cured
- Movement accommodation ±15%
- Zero shrinkage on cure
- Mix ratio 10:1 (Base:Accelerator) by weight

FIELDS OF APPLICATION

- Water & sewage treatment structures
- Fuel storage tanks and bunds
- Airport aprons and fuel distribution
- Submerged concrete joints
- Chemical plant containment
- Swimming pool expansion joints

TECHNICAL DATA

Components	2-part (base + accelerator)
Mix Ratio	10:1 by weight
Movement Accommodation	±15% (ISO 11600 F-25HM)
Shore A Hardness	20–30 (cured)
Pot Life	~2–3 hours at 25°C
Tack-Free Time	24 hours at 25°C
Full Cure	7–14 days at 25°C
Pack Size	5 kg set (4.5 kg base + 0.5 kg accelerator)
STANDARDS & COMPLIANCE	ASTM C920 Type M, Grade P · BS EN ISO 11600 F-25HM

PRODUCT FAMILY

SYNUPROOF

4 Products in this family

High-Performance Polyurea & Polyurethane Systems

SYNUPROOF delivers spray-applied and roller-grade polyurea and polyurethane systems for industrial, infrastructure, and high-demand architectural applications — from surface preparation primers through UV-stable decorative topcoats.

2KPrim

2-Component Epoxy Primer

Penetrating solvent-free epoxy adhesion primer

SYNUPROOF
2KPrim

SYNUPROOF 2KPrim is a two-part, solvent-free, low-viscosity epoxy primer designed to penetrate and consolidate concrete substrates before application of polyurethane or polyurea membranes. By sealing surface porosity and providing a chemically reactive interface, it maximises topcoat adhesion and prevents pin-holing caused by substrate outgassing during membrane cure.

SURFACE PREPARATION

Concrete must be structurally sound and at minimum 28 days cure. Surface must be free of laitance, dust, oil, grease, and curing compounds. Prepare by mechanical grinding, shot blasting, or high-pressure water jetting to achieve a minimum CSP 3 surface profile. Substrate moisture content should be <4% (CM method).

APPLICATION METHOD

Mix Part A (resin) and Part B (hardener) at the specified ratio by weight for 3 minutes. Apply by roller or brush at 150–200 g/m². Work material into surface pores. Allow to cure to tack-free (6–12 hours at 25°C) before applying topcoat. Minimum overcoat time 6 hours; maximum 24 hours (re-prime if exceeded).

KEY FEATURES

- Low viscosity (<500 mPa
- s) — deep substrate penetration
- Moisture-tolerant — applicable on damp concrete
- Pot life 45–60 min at 25°C
- Zero VOC
- Pull-off adhesion >2.5 MPa

FIELDS OF APPLICATION

- Concrete priming for SYNUPROOF PU/polyurea systems
- Steel substrate primer
- Consolidation of weak or powdery concrete
- Moisture-tolerant penetrating primer

TECHNICAL DATA

Components	2-part epoxy (A+B)
Viscosity (mixed)	<500 mPa·s at 25°C
Pot Life	45–60 min at 25°C
Tack-Free Time	6–8 hours at 25°C
Overcoat Window	6–24 hours
Adhesion (pull-off)	>2.5 MPa (EN 1542)
Coverage	5–8 m²/kg (substrate dependent)
Pack Size	5 kg and 10 kg sets
STANDARDS & COMPLIANCE	BS EN 1504-2 · ASTM D7234

2KP101

PU Aliphatic Topcoat

UV-stable two-part aliphatic polyurethane finish coat

SYNUPROOF
2KP101

SYNUPROOF 2KP101 is a two-component, aliphatic isocyanate polyurethane topcoat engineered for permanent colour and gloss retention in exterior environments. Applied over SYNUPROOF polyurea or polyurethane base membranes, it provides a UV-sacrificial barrier extending system service life while delivering a high-quality decorative and protective finish in any RAL or BS colour.

SURFACE PREPARATION

The base membrane must be fully cured, clean, and dry. Lightly abrade glossy surfaces to improve inter-coat adhesion. Apply within the overcoat window of the base membrane (typically 8–24 hours). Degrease metal substrates with solvent wipe. Substrate temperature must be ≥3°C above dew point.

APPLICATION METHOD

Mix Part A into Part B at the stated ratio by weight and stir for 3 minutes. Apply by roller, brush, or airless spray at 200–250 µm WFT per coat. Two coats required for full colour opacity and UV protection. Allow first coat to dry (4–6 hours) before applying second at 90° to the first.

KEY FEATURES

- Outstanding UV and chalk resistance (QUV weatherometer tested)
- Gloss or matt finish options
- Abrasion resistant (Taber CS17)
- Chemical resistant to dilute acids and alkalis
- Full RAL/BS colour range

FIELDS OF APPLICATION

- Topcoat over polyurea/PU waterproofing systems
- Roof deck decorative finish
- Car park and podium deck wearing surface
- Industrial floor topcoat
- Facade protective coating

TECHNICAL DATA

Components	2-part aliphatic PU (A+B)
Gloss Level	Matt / Satin / Gloss options
UV Resistance	Grade 0 chalking after 1000h QUV
Elongation	>50% (ISO 527)
Application Rate	4–5 m²/kg at 250 µm DFT
Pot Life	60–90 min at 25°C
Tack-Free Time	4–6 hours at 25°C
Pack Size	5 kg and 20 kg sets
STANDARDS & COMPLIANCE	ASTM D4587 (QUV) · ISO 4628 · EN ISO 2813

2KH300

Polyurea Hybrid

Fast-cure spray-applied hybrid polyurea membrane

SYNUPROOF
2KH300

SYNUPROOF 2KH300 is a 100% solids, spray-applied hybrid polyurea system combining the rapid gel time of pure polyurea with the extended processing window of polyurethane. Applied via heated, high-pressure plural-component spray equipment, it forms a seamless, pinhole-free membrane within seconds — enabling rapid return to service with no drape or sag on vertical substrates.

SURFACE PREPARATION

Prime all concrete substrates with SYNUPROOF 2KPrim. Allow primer to achieve tack-free state. Concrete moisture content must be <4%. Ensure substrate temperature is between 5°C and 50°C and ≥3°C above dew point. Blow off all dust with dry compressed air immediately before spraying.

APPLICATION METHOD

Apply using heated, high-pressure (150–200 bar) plural-component spray equipment with inline heaters (60–70°C). Ratio 1:1 by volume (A+B). Spray in overlapping passes to achieve specified DFT (typically 1.5–3.0 mm). Minimum two passes recommended. Material is trafficable within 30–60 minutes of application.

KEY FEATURES

- Gel time <15 seconds — no sag on vertical faces
- Elongation >350%
- 100% solids — zero VOC
- Temperature range –40°C to +120°C service
- DFT 1–4 mm achievable in single pass

FIELDS OF APPLICATION

- Roof and podium deck waterproofing
- Tunnel linings (cut and cover)
- Secondary containment areas
- Car park waterproofing
- Water features and lagoon linings
- Bridge deck protection

TECHNICAL DATA

Components	2-part hybrid polyurea, 1:1 by volume
Gel Time	<15 seconds
Tack-Free Time	30–60 seconds
Return to Service	30–60 minutes
Elongation at Break	>350% (ASTM D412)
Tensile Strength	>12 MPa
Application Temp.	+5°C to +50°C substrate
Pack Size	200 kg drum set (A+B)
STANDARDS & COMPLIANCE	ASTM C836 · EN 14695 · ISO 527

2KP300

Polyurea Pure

100% solids pure polyurea heavy-duty industrial coating

SYNUPROOF
2KP300

SYNUPROOF 2KP300 is a true 100% solids pure polyurea system based on aromatic isocyanate prepolymer (Part A) and amine chain-extender blend (Part B). It offers the highest tensile strength, elongation, and chemical resistance in the SYNUPROOF range — specified for the most demanding infrastructure waterproofing, industrial containment, and blast-mitigation applications worldwide.

SURFACE PREPARATION

Blast clean steel to Sa 2.5 (ISO 8501-1). Prepare concrete to CSP 5–6 by shot blasting. Apply SYNUPROOF 2KPrim primer and allow to cure. Moisture content <4%. All surface temperatures must be ≥3°C above dew point. Blow clean with dry oil-free compressed air immediately before spraying.

APPLICATION METHOD

Apply using heated, high-pressure (200+ bar) plural-component spray equipment with inline heaters (70–80°C). Ratio 1:1 by volume (A+B). Material gels in <5 seconds — equipment setup and flushing must be completed before beginning application. Inspect each pass for pinholes using high-voltage holiday tester at 1 kV per 25 µm DFT after full cure.

KEY FEATURES

- Tensile strength >20 MPa (ASTM D412)
- Elongation >450%
- Shore D hardness 50–55
- Full immersion resistance in water, fuels, chemicals
- Moisture impervious during application — no pin-holes from substrate outgassing

FIELDS OF APPLICATION

- Potable and waste water storage tanks
- Pipeline and reservoir linings
- Mining and industrial chemical containment
- Marine and offshore structure protection
- Blast-mitigation and fragment retention linings

TECHNICAL DATA

Components	2-part pure polyurea, 1:1 by volume
Gel Time	<5 seconds
Tensile Strength	>20 MPa (ASTM D412)
Elongation at Break	>450%
Shore D Hardness	50–55 (ASTM D2240)
Tear Resistance	>60 kN/m (ASTM D624)
Application Temp.	+5°C to +50°C substrate
Pack Size	200 kg drum set (A+B)
STANDARDS & COMPLIANCE	ASTM D412 · ASTM D2240 · NACE SP0188

Complete SKU & Product Reference

SKU	PRODUCT NAME	BRAND	DESCRIPTION	STANDARDS
2G345	Spray Foam	SYNUROOF	Two-component closed-cell polyurethane insulation foam	ASTM C591 · ASTM D1621 · BS EN 14315
G100	Geo Textile	SYNUROOF	Needle-punched non-woven polypropylene geotextile	EN 13252 · EN 13257 · ASTM D4751
F100	Filler Board	SYNUROOF	Bitumen-impregnated compressible expansion joint board	ASTM D1751 · BS EN 14188
B100	Baker Rod	SYNUROOF	Closed-cell polyethylene backer rod for joint sealing	ASTM C1330
CA40	Cementitious Acrylic Coating	SYNUCOAT	Two-component flexible cementitious waterproofing slurry	BS EN 1504-2 · ASTM C836 · Potable water approved
AC100	Acrylic Coating	SYNUCOAT	Elastomeric single-component acrylic roof membrane	ASTM D6083 · BS 6213 · LEED v4 EQ Credit
RB100	Rubberized Bitumen	SYNUCOAT	Cold-applied elastomeric bitumen waterproofing emulsion	ASTM D1227 · CGSB 37-GP-6M
2KP100	2-Component PU Coating	SYNUCOAT	High-build two-part polyurethane waterproofing membrane	ASTM C836 · EN 14891 · ISO 527
1KP100	1-Component PU Coating	SYNUCOAT	Moisture-curing single-part polyurethane membrane	ASTM C836 · EN 14891
1PUS	1-Component PU Sealant	SYNUCOAT	Gun-grade moisture-curing polyurethane joint sealant	ISO 11600-F-25LM · ASTM C920 Type S, Grade NS
2KPS	2-Component Polysulphide Sealant	SYNUCOAT	Chemical & fuel-resistant two-part joint sealant	ASTM C920 Type M, Grade P · BS EN ISO 11600 F-25HM
2KPrim	2-Component Epoxy Primer	SYNUPROOF	Penetrating solvent-free epoxy adhesion primer	BS EN 1504-2 · ASTM D7234
2KP101	PU Aliphatic Topcoat	SYNUPROOF	UV-stable two-part aliphatic polyurethane finish coat	ASTM D4587 (QUV) · ISO 4628 · EN ISO 2813
2KH300	Polyurea Hybrid	SYNUPROOF	Fast-cure spray-applied hybrid polyurea membrane	ASTM C836 · EN 14695 · ISO 527
2KP300	Polyurea Pure	SYNUPROOF	100% solids pure polyurea heavy-duty industrial coating	ASTM D412 · ASTM D2240 · NACE SP0188

Technical Data Sheets, Safety Data Sheets, and system specifications are available for all products.

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