

SPECIFICATION & APPLICATION GUIDE

GacoFlex S42

Pitched Roof Application Guide

Metal, Box-Profile, Cement Fibre & Asbestos Cement Substrates. A single-coat liquid silicone system that encapsulates and waterproofs pitched industrial roofs — no strip-off, no fixings, no disturbance of the existing sheets.

SOLIDS
96.5%

SYSTEM
Single-
coat

WARRANTY
10 / 20 yr

SUBSTRATES
Metal · Cement Fibre ·
Asbestos

EDITION
2026
Edition

SECTION ONE

1 Purpose & Scope

This guide details the application of **GacoFlex S42** as a liquid-applied encapsulation and waterproofing system over **pitched profiled roofs** — box-profile and standing-seam metal, corrugated cement fibre and asbestos cement. The system delivers a high-performance, UV-stable, ponding-resistant waterproof membrane for refurbishment and life-extension of existing roofing systems. GacoFlex S42 is a **single-coat system** — film thickness alone determines whether the roof qualifies for the 10-year or 20-year warranty.

STEP 1 · CLEAN

Sollac Hipolava

Biocidal clean — kills moss, algae & lichen; removes dirt, oxidation & biological growth.

STEP 2 · DETAIL

SF42 SeamSeal

Bridge seams, penetrations & upstands.

STEP 3 · REPAIR

GacoPatch

Cracks > 6 mm & deep voids (as required).

STEP 4 · RUST TREAT

Metal primer

Ferrous / rusted areas only — none on cement fibre.

STEP 5 · COAT

GacoFlex S42

Single coat — 0.50 mm / 20 mil (10-yr) or 0.86 mm / 34 mil (20-yr).

SECTION TWO

2 The GacoFlex S42 Roof System — Four Products

A complete warranty-compliant installation is built from four core products. Each performs a distinct role — **clean, detail, repair, coat** — with spot rust-priming where metal needs it. Used together they form a fully bonded, monolithic, single-coat silicone membrane.



STEP 1 · CLEANER

Sollac Hipolava

Biocidal dilute-in-water cleaner

Removes dirt, biological growth, oxidation & loose surface contaminants from cement fibre, asbestos cement, metal & concrete.

DILUTE STATUS

20:1

REQUIRED



STEP 2 · DETAILING

SF42 SeamSeal

Fibre-reinforced — no fabric

High-build silicone mastic with embedded fibres. Detail at **seams, upstands, parapets, penetrations & fixings**.

CURE STATUS

2-4 hr

MANDATORY



STEP 3 · REPAIR

GacoPatch

Trowel-grade silicone patch

Single-component fast-set silicone for cracks > 6 mm, voids & punctures. Bonds without reinforcement fabric.

CURE STATUS

4-8 hr

AS REQUIRED



STEP 5 · THE MEMBRANE

GacoFlex S42

96.5% solids silicone topcoat

The single-coat waterproof silicone membrane. Applied by airless spray. **Single-coat system** — total film thickness alone determines warranty: 0.50 mm (20 mil) DFT for 10 yr, 0.86 mm (34 mil) DFT for 20 yr.

SOLIDS COATS STATUS

96.5%

Single

REQUIRED

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Live pricing & materials calculator at duratite.co.uk/shop

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Hipolava biocidal clean + SF42 SeamSeal at all weak points

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Single-coat GacoFlex S42 + thickness verification

SECTION THREE

3

Pitch, Profile & the Fragile-Roof Rules

3.1 Materials are calculated on the developed area

A pitched, profiled roof has more surface than its plan footprint. Two allowances convert the plan area into the **developed area** every product quantity must be based on:

- **Pitch:** multiply by the slope factor — $10^\circ \times 1.015 \cdot 15^\circ \times 1.035 \cdot 20^\circ \times 1.064 \cdot 25^\circ \times 1.103$
- **Box-profile metal:** add **+12%** for the profile
- **Corrugated cement fibre / asbestos:** add **+20%** for the corrugations

Example: 400 m² plan at 15° in cement fibre → $400 \times 1.035 \times 1.20 =$ **497 m² developed**. Under-allowing is the most common cause of mid-job supply shortfalls. The materials calculator at duratite.co.uk applies both allowances for you.



Standing allowances: corrugated cement fibre roofs +20%; box-profile sheets +12%; flat or standing-seam metal none. Always record the pitch in degrees and the slope factor on the job file.

Cool-roof bonus on metal: in White, S42 reflects 87% of solar energy when new. A cooler sheet expands and contracts far less through the day, so laps, fixings and sealants stop being worked loose by thermal movement — and the building below runs cooler in summer.

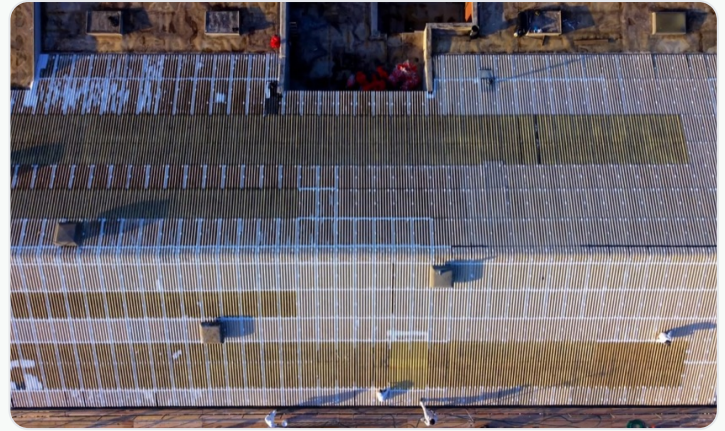


Fig 1. Corrugated asbestos cement at Clarkes 24/7, Bristol — coated bays beside weathered sheets. The corrugations add real surface area: this roof carries +20% over its plan footprint.

3.2 Fragile roofs & the asbestos rules

- **Cement fibre & asbestos roofs are fragile** — crawl boards / roof walkways and edge protection at all times
- **Never cut, drill, abrade or power-wash asbestos cement** — the coating self-bonds; no mechanical fixings are used
- Encapsulation leaves the sheets undisturbed — the reason coating beats strip-off on asbestos roofs

GacoFlex S42 is spray-applied and self-adhering — the encapsulation is achieved without a single penetration of the existing sheets.

SYSTEM BUILD-UP · CROSS SECTION

	GacoFlex S42 Silicone Topcoat 0.50 mm / 20 mil (10-yr) · 0.86 mm / 34 mil (20-yr) DFT — single coat, applied by airless spray over the full roof area	REQUIRED
	SF42 SeamSeal — at details only Seams, upstands, parapets, penetrations, fixings — fibre-reinforced, no fabric required	MANDATORY
	Rust treatment — metal roofs only Loose rust removed, anti-corrosive primer + light E5320 dusting on ferrous areas. Not used on cement fibre, asbestos or sound galvanised sheet	AS REQUIRED
	Existing Substrate Cleaned weathered metal / cement fibre / asbestos cement — repaired with GacoPatch where required	IN SITU

UNDER-ALLOWED AREA — RISK

- Pails run out mid-roof — programme slips
- Split batches & visible joins in the finish
- Warranty film build missed on the last bays
- Second delivery & second mobilisation costs

CORRECT DEVELOPED AREA — RESULT

- Right pail count first time, one continuous application
- Warranty film build achieved on every bay
- One batch — consistent colour & finish
- No mid-job supply gaps or repeat access costs

SECTION FOUR

4

Surface Preparation

4.1 General requirements

All substrates must be cleaned to remove dirt, organic growth, oxidation, oil, grease & contaminants prior to priming or coating. Mechanical preparation should be employed where appropriate, avoiding damage to the substrate.

4.2 Biocidal cleaning with Sollac Hipolava

- Dilute Hipolava 20:1 (water : concentrate)
- Distribute via low-pressure spray or soft broom
- Allow 10–15 minutes dwell time
- Agitate & thoroughly rinse with clean water
- Allow surface to dry fully before proceeding



Caution: Do not power-wash if the roof is structurally fragile or contains asbestos cement elements.



Fig 2. Prep under way on the Clarke's 24/7 asbestos roof, Bristol — biocidal clean and detailing from crawl boards, sheets never cut, drilled or abraded.

SECTION FIVE

5

Detailing — SF42 SeamSeal

Prior to the final GacoFlex S42 coat, all detail work must be completed using **SF42 SeamSeal** — a fibre-reinforced silicone mastic engineered to bridge weak areas with added tensile strength. **SF42 is fibre-reinforced** — its embedded fibres bridge minor gaps and resist movement stresses without any additional fabric or scrim.

5.1 Areas to detail

- Seams & laps in profiled metal / cement fibre sheets
- Roof penetrations — turrets, skylights, pipes, vents
- Parapet junctions & upstands
- Fixings, bolt heads, surface-mounted hardware

5.2 Application procedure

- Apply by brush or trowel
- Min coverage width: 25 mm beyond joint each side
- Uniform film build with full coverage
- Cure 2–4 hours before applying GacoFlex S42



Fig 3. SF42 seam-sealing in the field — a rooflight perimeter and laps sealed on corrugated cement fibre at Nottingham (worked from crawl boards), and every lap, fixing and rooflight sealed at Tresidder Close, Cornwall.

5.3 Common detail areas — at a glance

PENETRATIONS

Pipes · Vents · Skylights

Bridge a minimum 25 mm onto the substrate & up the penetration with SF42.

UPSTANDS

Parapets · Walls · Kerbs

SF42 detail bead at the kicker, lapped 100 mm onto vertical & horizontal faces.

FIXINGS

Bolts · Screws · Brackets

Encapsulate every fixing head — feathered SF42 patch covering at least 25 mm beyond.

SEAMS

Laps · Joints · Transitions

Run SF42 along every lap & field-applied joint — no fabric or scrim required.

SECTION SIX

6

Larger Defects — GacoPatch

GacoPatch is a single-component, fast-setting silicone repair compound for severe defects where SF42 SeamSeal does not provide sufficient build or flexibility:

- Larger cracks (wider than 6 mm)
- Deep voids & punctures
- Joint gaps with pronounced movement
- Damp-condition emergency repairs

High viscosity, strong adhesion to cement fibre, metal and concrete.
Applied without reinforcement fabric. Long-term flexibility, UV stable, accommodates substrate movement.

6.1 Application procedure

- Clean & dry the repair area thoroughly
- Apply by trowel or gloved hand directly into the defect
- Spread evenly — smooth, thick patch with feathered edges
- Build up to fully bridge the defect without sagging
- Cure 4–8 hours before applying GacoFlex S42 over the repair

SECTION SEVEN

7

Priming & Rust Treatment — Metal Roofs Only

- ★ **Most pitched roofs need no primer at all.** S42 bonds direct to cement fibre, asbestos cement and sound weathered galvanised sheet. Priming is only for ferrous / rusted metal areas, or coated (plastisol) sheet that fails an adhesion test.

7.1 Application conditions

- Apply only to clean, dry & stable substrates
- Ambient & substrate temperature 5°C – 40°C
- Do not apply if rain is expected within 4 hours

7.2 Application procedure

- Mechanically remove loose rust — never abrade asbestos
- Spot-apply an anti-corrosive metal primer to ferrous areas
- Follow with a light dusting of GacoFlex E5320 epoxy primer/filler
- Plastisol-coated sheet: pull-off / rub adhesion test first
- Cure per primer TDS before the S42 coat goes on

7.3 Pitched Substrate Decision Matrix

SUBSTRATE	CORROSION RISK	ADHESION RISK	PRIMING RECOMMENDATION
Cement fibre / asbestos cement	None	Low	Not required — never cut, drill or abrade
Weathered galvanised metal	Low	Low	Not required — direct adhesion
Ferrous / surface-rusted metal	High	Medium	Anti-corrosive primer + E5320 dusting on affected areas
Plastisol / Plasticoat sheet	Low	Medium	Adhesion test first — prime only if it fails

- i **Adhesion test:** on factory-fresh or unfamiliar substrates the primer can be omitted, but only after a successful pull-off / rub-test confirming silicone bonds directly to the cleaned substrate.

SECTION EIGHT

8 GacoFlex S42 Silicone Application — A Single-Coat System

i GacoFlex S42 is applied as a single coat. Total dry film thickness determines warranty period — there is no second coat. The same silicone is laid down in one application, with WFT verified throughout to hit the target build for the chosen warranty.

10-yr

Standard Warranty

FILM THICKNESS

0.50 mm · 20 mil DFT

WFT COVERAGE COATS
~0.51 mm 30–33 m²/pail Single

20-yr

Extended Warranty

FILM THICKNESS

0.86 mm · 34 mil DFT

WFT COVERAGE COATS
~0.91 mm 19–21 m²/pail Single

Due to GacoFlex S42's 96.5% solids content, WFT and DFT are almost identical. Use calibrated **WFT comb gauges** to verify thickness every 20 m² as the coat is laid down — under-build is corrected immediately, before the silicone tacks.

8.1 Application method

- Mix thoroughly before spraying
- Apply with Graco X70 70:1 airless sprayer (or equivalent)
- 521 / 631 tip for narrow detail; 725 tip for open areas
- Remove inline gun filters to prevent clogging
- Apply evenly — on steeper pitches a white-then-grey split of the same build keeps coverage visible & prevents sag
- Avoid wind >10 mph or high humidity

8.2 Drying & recoat times

- Touch dry: 2–4 hours
- Rain resistance: minimum 2 hours @ 20°C
- Recoat / re-spray window (if needed): 6–12 hours
- Full cure: 24–48 hours (ambient dependent)

SECTION NINE

9 Quality Control

A QA process must document ambient conditions, substrate temperature, WFT every 20 m², primer/seam confirmation, batch numbers & expiry, photographic detailing records, and sign-off of penetrations before the silicone is laid. **Areas failing minimum thickness must be corrected immediately, in-coat.** After 20 years the system is recoated with GacoFlex S42 alone — no re-detailing or re-priming required.

SECTION TEN

10 Materials & Where to Buy

Every product in this guide is supplied direct by Duratite Building Products — **live pricing, stock and next-day delivery at duratite.co.uk/shop**. Use the on-page materials calculator to convert your roof's plan area, pitch and profile into exact pail counts for the 10-year or 20-year build, or call **01208 832 602** and we'll spec the job with you — free, before you order.

PRODUCT	ROLE ON A PITCHED ROOF	COVERAGE GUIDE
Sollac Hipolava	Biocidal clean — 20:1 dilution, 10–15 min dwell, rinse, dry	approx. 100 m ² per drum
GacoPatch	Fill holes, cracked laps & defects; detail repairs — bonds even to damp surfaces	detail use — 1 tub minimum
Metal primer + E5320	Ferrous / rusted metal areas only — spot use; none on cement fibre or asbestos	as required
SF42 SeamSeal	Fibre-reinforced seam & detail grade — no fabric needed	quantity from lap metres
GacoFlex S42	The topcoat — single coat at 0.50 mm / 20 mil (10-yr) or 0.86 mm / 34 mil (20-yr)	33 m ² /pail · 21 m ² /pail

Allowances: +12% box profile · +20% corrugated cement fibre — all coverage per developed m².

Matting: only at high-risk junctions — SF42 fibres replace fabric.

Coverage: 33 m²/pail (10-yr) · 21 m²/pail (20-yr).

Pail: 18.9 L · **Rain window:** 2 hr @ 20°C.

SECTION ELEVEN

11

Health, Safety, Warranty & Materials

11.1 H&S Controls

- Fall protection in place for all roof works
- **Fragile roofs:** crawl boards / walkways on cement fibre & asbestos — **never cut, drill or abrade**
- Compliant scaffolding, edge protection or mobile towers
- Do not apply in high wind or rain forecast within 2 hours
- Full-face respiratory protection in confined / poorly ventilated areas
- Mechanical ventilation when spraying in confined spaces
- Cordon off the area below to prevent overspray injuries
- Maintain clear emergency egress routes throughout
- PPE: nitrile gloves, safety glasses, suitable footwear; eye contact — flush 15 min & seek medical advice
- Material storage: 5–35°C, away from direct sunlight

11.2 Warranty compliance

REQUIREMENT	10-YR	20-YR
Hipolava biocidal clean	Required	Required
SF42 SeamSeal	Mandatory	Mandatory
Metal rust priming	As required	As required
GacoFlex S42 DFT	0.50 mm (20 mil)	0.86 mm (34 mil)
QA records	Required	Required

11.3 Duratite UK Projects — GacoFlex S42 in service



Fig 4. Asbestos cement at Clarkes 24/7, Bristol (silicone only) and profiled metal at Tresidder Close, Cornwall.

11.4 Why specify the GacoFlex S42 system?

96.5%

SOLIDS CONTENT

Almost no shrinkage on cure — DFT and WFT are functionally identical.

1 coat

SINGLE APPLICATION

No second coat. Faster installation & lower labour cost than acrylic or PU systems.

20 yr

MANUFACTURER WARRANTY

Recoatable indefinitely with GacoFlex S42 alone — no re-detailing or re-priming.

2 hr

RAIN RESISTANCE

Touch-dry to rain-resistant in 2 hours @ 20°C — minimises weather-related delays.

TECHNICAL SUPPORT

Need a project-specific specification or a site visit?

Our technical team will produce a fully detailed system specification, condensation analysis & warranty documentation tailored to your roof.

01208 832602

info@duratite.co.uk