

# KEMPEROL+COEWELL

The innovative solution for asbestos roof repairs

The problems of a leaking roof are magnified when the roof in question happens to be asbestos.

Widely used as a low cost, durable roofing material up until the 1970's, many roofs are now starting to fail and require repair, however health & safety considerations often make this a complex and expensive process.

Kemperol offers a proven, cost-effective solution that combines a waterproofing membrane to seal overlaps and fixings with a whole-of-roof protective coating.



Typical 'patch' solutions include paint-on coatings and resins (rarely more than a temporary fix), overcladding (costly) through to a complete strip and re-roof, which is a particularly disruptive and expensive process due to the need for specialist removal and disposal of waste under the Control of Asbestos at Work Regulations.

The Kemperol approach is a whole-roof solution that uses a resin-impregnated polyester fleece to strengthen and seal the vulnerable boltheads and side laps, followed by encapsulation of the entire roof using acrylic-based Coewell – an elastic and highly durable product that is UV-resistant and has proven performance in even the most extreme levels of exposure.

## Key benefits

- Superior performance to simple 'patch' solutions
- Significant cost savings against overcladding or re-roofing
- Minimises disruption and potential loss of productivity
- No drilling or removal of asbestos
- Permanently seals – minimal risk of asbestos fibres released into air
- Excellent bonding characteristics
- Repairs leaking areas and protects against future failure
- Encapsulates vulnerable joints and fixings in a thick, elastic membrane

## ASBESTOS ROOF REPAIRS

### Background

Asbestos roofing normally contains 10-15% white asbestos, although older products may contain some brown or blue asbestos, that typically used cement as the bonding agent, hence 'asbestos cement'. The material is fairly inert, being bonded with the cement, with fibres most likely to be released into the air through rough handling or, particularly, through the use of power tools – something that should only be used if provision is made for capturing released fibres.

The Control of Asbestos at Work Act (2002) puts a responsibility on building owners to prevent the risk of exposure to asbestos.

Any contractor working with materials such as asbestos insulating board or surfaces that have been sprayed with asbestos coatings must be licensed by the HSE, however a licence is not required to work with asbestos cement products such as profiled roofing.

A far more stringent Programme of Work is required for overcladding compared to encapsulation (the Kemperol solution) due to the mechanical processes involved (handling and drilling of sheets and consequent risk of fibre release).

Profiled asbestos becomes increasingly brittle and fragile over time and care must be taken by operatives to ensure safe practice when working on the roof.



Asbestos roof at London car showroom, repaired and restored using the Kemperol+Coewell system

- Proven solution; conforms to Control of Asbestos Act
- Requires no new fixings through asbestos
- Encapsulates fixings and side laps with fully bonded, permanently elastic membrane
- Installed by trained and approved contractors
- Entire roof sealed in UV-resistant coating
- Repairs all leaks, protects against future failure
- Lightweight - no reinforcement needed

### Description and suitability

The Kemperol+Coewell solution for repairing pitched asbestos roofs comprises three essential stages: 1) cleaning and preparation; 2) sealing of fixings and side laps and 3) encapsulation.

#### Cleaning & Preparation:

The roof is first washed down with pressurised water to remove debris and organic material, with the waste collected for controlled disposal. The most vulnerable areas to be reinforced with Kemperol are then primed to facilitate bonding. This will include the side laps and boltheads, as these are weak points often subject to failure.

No structural reinforcement is necessary to accommodate this system.



#### Application of reinforcing fleece and Kemperol resin:

Kemperol 1K-PUR is then applied to the sheet joints and penetrations in conjunction with a polyester reinforcement fleece. This not only repairs the existing leaks, but encapsulates the joints and fixing heads within a thick membrane with the strength and flexibility to provide long term protection - a permanently elastic, seamless membrane that is highly durable and tear-resistant.

Kemperol 1K-PUR can be applied straight from the can, with a long 'open working time' which is particularly suited to working on fragile asbestos roofs where load bearing is sensitive and detailing often awkward, as small, discrete areas can be treated quickly, efficiently and safely.

#### Final encapsulation:

Kemperol 1K-PUR is weather-resistant after 60 minutes and can be walked on after 24 hours. It should be allowed to completely cure prior to the final application of Coelan Coewell to encapsulate the whole roof.

Designed for pitched roof surfaces it is non-ageing, restricts the growth of algae and has permanent flexibility at temperatures from -20°C to +90°C.

The standard colour is Mid Grey, which produces a discrete but attractive finish to replace the tired appearance of weathered asbestos cement.

#### Rooflights:

Where clear rooflights are integrated within the existing roof, Kemperdur FGC should be used on these details. This is a completely transparent coating that unlike other polyurethane-based clear coatings is totally UV stable.

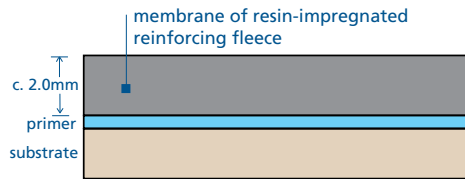


Rooflights may be coated with Kemperdur FGC Coating

## Kemperol 'wet on wet' - always the best solution

Kemperol is applied 'wet on wet' meaning there are no laminations between layers, as with wet on dry systems. The reinforcing fleece is also highly elastic and tear-resistant, resulting in a membrane with superior performance and durability. And because Kemperol is applied in a single operation, installation time and costs as well as project completion times are all reduced.

### Kemperol 1K-PUR single layer, 2-coat waterproofing



### Key product characteristics

- Durable and long-lasting
- Outperforms other repair solutions
- Seals and protects vulnerable joints between sheets and bolt-heads
- Long 'open' period (pot life)
- Permanently elastic – withstands movement
- Weather-resistant in 60 minutes
- Single-pack: applies straight from the can

### Advantages

- Lower cost alternative to re-roofing
- Avoids removal of existing asbestos roof sheets
- Rejuvenates roof appearance in attractive Mid Grey
- Minimises disruption to ongoing operations

### Products:

Component	Product
Primer	Kemperol 'R'; Kemperol TG
Fleece	Kemperol 165 polyester reinforcing fleece
Resin	Kemperol 1K-PUR, single pack polyurethane resin
Encapsulation	Coelan Coewell acrylic-based polyurethane coating (solvent-free)
Rooflights	Kemperdur FGC Transparent, UV-stable polyurethane coating

### Approvals and Authority

Product	Approval
1K-PUR	European Technical Approval (ETA) Certificate ETA-03/0043

*Every effort has been made to ensure the information provided on this Guidance Note is correct. It is intended for general guidance only and it is the responsibility of the user to confirm product suitability – more detailed and specific advice may be obtained from our technical department or from an approved contractor. The correct application of our products is the responsibility of the appointed contractor.*