

new



Uniclass L5242	EPIC E342
CI/SfB (47)	X

DECADEX

TECHNICAL DATA SHEET FOR ROOFS

DESCRIPTION

New Decadex is a waterborne, synthetic rubber/ styrene-acrylic copolymer formulation, which may be applied by brush, roller or airless spray equipment. It is free from strong odour and toxic fumes and cures to form a tough, matt, elastomeric membrane, which tolerates substrate movement and does not embrittle with age, or prolonged exposure to ultra-violet light. In addition, it is vapour permeable and available in a wide colour range.

BENEFITS

- Water based
- Single component
- No pot life limitations
- Easy application by brush or spray
- Cost effective
- High build
- Excellent UV and thermal stability
- Suitable for flat or pitched roofs
- Easily reinforced – extremely high tensile strength with elongation
- Permanently elastomeric – does not embrittle on ageing
- Anti-carbonation properties
- Light colours are solar reflective
- Self cleaning and resistant to algal growth
- Very long shelf life
- Resistant to chemicals/pollution
- 10 and 15 year guarantees are available

TECHNICAL DATA

The following data is selected from a range of tests.

Water vapour permeability

BS.3177 (temperate)
8.4g/m²/24 hours at 0.47mm nominal dry film thickness.

Impact resistance

BS.3900: Part E3
Withstands 5mm indentation without damage to film.

Accelerated weathering

ASTM G53 - 3000 hours
No surface defects, crazing or flaking.

Chemical resistance

Resistant to a range of chemicals including acids and alkalis (10% solutions).

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Approximate solids content

60.5% by weight
49.5% by volume

Elongation

320% using P10 system

Tensile strength

1.80 N/mm² using P10 system

Specific gravity

1.25

Typical drying times

(50% Relative Humidity and 550 microns Wet Film Thickness)
At 5°C. - Touch dry at 1 hour and through cured at 2 hours.
At 20°C. - Touch dry at 45 minutes and through cured at 1 hour.
Allow 24 hours between coats.

Pack size

15 litres.

Anti-carbonation

Equivalent carbonation barrier to 520 metres of air.
(Effective barrier = 50 metres).

Scratch resistance

BS.3900: Part E2
Withstands 1Kg without damage.

Sub tropical testing (Florida Weathering)

ASTM G7 - 6 months
No discolouration, defects, crazing, flaking or lichen growth.

Dry film anti-fungal properties

New Decadex gives protection against dry film fungal colonisation, with no growth of micro-organisms, such as *Aspergillus versicolor* and *Penicillium purpurogenum*.

Salt spray exposure

BS.3900: Part F4 - 5000 hours
No rusting, blistering or other signs of corrosion when used with an appropriate primer.

APPLICATION GUIDE

New Decadex fluid applied roofing is designed for application to all types of roofing structures and can follow the most complex of designs on roofs. With a pitch of less than 15° systems are always fully reinforced, combining the strength of the traditional sheet materials with the ease of application of a liquid. The following table provides a systems guide and coverage rates.

New Decadex systems guide

System	Function	Reinforcement type	Embedment coat (L/m ²)	Second coat (L/m ²)	Total (L/m ²)	Dry film thickness (microns)
New Decadex P10	Weatherproofing of pitched roofs (>15°)	Local reinforcement	0.5	0.5	1.0	500
New Decadex P15	Weatherproofing of pitched roofs (>15°)	Total reinforcement with Reemat Standard	0.5	0.5	1.0	600
New Decadex FL10	Weatherproofing of flat roofs (<15°)	Total reinforcement with Reemat Standard	0.5	0.5	1.0	600
New Decadex FL15	Weatherproofing of flat roofs (<15°)	Total reinforcement with Reemat Premium	1.0	0.75	1.75	900

Substrate compatibility

System	Substrate	Asphalt- good condition moderate condition	Felt- good condition moderate condition	Concrete, crazed & active	Concrete, crazed & sound	Asbestos cement sheeting	Asbestos free boards	EPS, PUR, PIR and slabstock	Spray applied foam	Metals, small areas & detail work	Profiled metal sheeting / Plastisol	Wood, overfelted	Brick & stone	Slate / tiles	Plastics (GRP, UPVC, ABS)	Bituminous coatings	Paints
New Decadex P10		n/a	X X	X X	X	✓	✓	X	✓	✓	✓	X	✓	✓	1	X	2
New Decadex P15		n/a	✓	✓	X	✓	X	✓	X	✓	X	✓	✓	X	1	✓	✓
New Decadex FL10		✓	✓	✓	X	✓	X	✓	X	✓	X	✓	✓	X	1	✓	✓
New Decadex FL 15		✓	✓	✓	✓	X	X	✓	X	✓	X	✓	✓	X	X	✓	✓

1. Not normally used for the application indicated, but may be compatible for detail work. Consult our Technical Customer Services Department for advice.

2. Consideration only. For compatible coatings in good condition on sound substrates. Consult our Technical Customer Services Department for advice.

Minimum application temperatures

New Decadex: 3°C.

Throughout the application and curing period, ensure that the substrate and atmospheric conditions remain a minimum of 2°C above the dew point.

REINFORCEMENT

Reinforcement systems to be used in conjunction with New Decadex.

The Reemat System

Comprises special quality glass mat, in two different weights, for total reinforcement of Liquid Plastics' roofing membranes and Reemat Flexitape, a unique nylon reinforcing tape for preliminary crack treatment, edging and finishing.

Reemat Glass Fibre Mat

Developed for use in areas requiring strength and protection i.e. on substrates with rough profiles, substrates already cracked or expected to crack or where impact and wear resistance is required. The Reemat GFM is surface treated, blown glass in a mat form. The random fibres give maximum multi-directional tensile strength, yet mould easily around existing substrate protrusions and profiles.

Two grades are available – STANDARD (lighter weight) and PREMIUM (heavy weight).

Reemat Flexitape

Made from a nylon mesh of unique open knitted weave construction and designed to give high multi-directional stretch, Reemat Flexitape is used for edging/finishing and bridging gaps between substrates. It is produced in a light and heavy duty grade with a range of widths to aid application.

SITE WORK AND APPLICATION

The following details are intended to provide a general guide to site preparation, application work and associated considerations. For further details, please consult your local Area Sales Manager or our Technical Customer Services Department.

We recommend the use of our Quality Assurance Programme of independently inspected UK contractors. They have high quality systems in place and have received specialist training in the application of our products. Work carried out by quality assured contractors is independently assessed by the Institute of Clerk of Works to ensure that the highest possible standards are achieved.

Export

Liquid Plastics operates through a worldwide network of distributors who can provide appropriate training and technical support for overseas contractors.

STORAGE OF MATERIALS

Storage temperatures

Minimum temperature: > 0°C.

Maximum temperature: 35°C.

Shelf life

24 months (when stored under the recommended storage conditions).

SUBSTRATE TREATMENTS

GENERAL

Do not allow temporary ponding to remain between coats on any horizontal surfaces or until the final coating has totally cured (up to 7 days). Brush or mop surface water away during this time.

INDIVIDUAL

Asphalt

All major cracks should be sealed to allow continuity of the coating system. Prime the surface with Bonding Primer prior to the application of a fully reinforced system. In the case of volatile substrates, the system should be applied over Metal Primer.

Felt

Always replace badly degraded felt. Treat blisters by star cutting and removing any underlying water. Allow to dry and re-adhere with Decostik®. Always use a totally reinforced system. Prime with Bonding Primer.

Cementitious substrates

Allow new cement to cure for a minimum of 10 days - ideally 28 days - check that the substrate moisture content does not exceed 20% as measured by a protimeter. Treat with Bonding Primer. Always use a reinforced system.

Asbestos cement and asbestos-free equivalents

Always ensure strict compliance with Health and Safety Executive requirements when working with asbestos containing materials. Surfaces should be wetted before cleaning or abrading to prepare the substrate. When the surface is dry, prime the sheets with Bonding Primer. Bolt-heads should be abraded to reveal bright metal, tightened, cropped where necessary and primed with Aqueous Metal Primer.

Insulation materials (various)

Ensure that the insulation is soundly fixed or adhered and that it is clean and free from loose material. Liquid Plastics Carrier Membrane should be installed over flat slabstock and the resulting system treated as felt in good condition for the purposes of systems selection.

Spray applied polyurethane/PIR foam insulation on pitched roofs should be treated with Bonding Primer. Reinforcement must be used over any edges, laps or joints with other substrates. Polyurethane/PIR slabstock foam, open-faced foam or EPS insulation in pitched, non-ponding areas should be primed using Bonding Primer prior to the application of a fully reinforced system.

Roofs requiring re-insulation should be stripped, reinsulated with slabstock over a vapour barrier and covered with a single layer of Liquid Plastics Carrier Membrane prior to coating with a totally reinforced system.

(Details of Liquid Plastics Carrier Membrane are available on request).

Metal substrates

Wherever possible, abrade exposed surfaces to reveal bright metal. Use localised reinforcement over joints and fixings.

Use New Decadex over Aqueous Metal Primer for metal protrusions within other roof surfaces. Always remove rust from ferrous metals, and oxidation from non-ferrous metals before priming.

When treating bare metal and PVC/Plastisol coated roofs, New Decadex is applied after a pre-treatment of solvent wipe and Metal Primer.

Wood (overfelted)

Wooden roof decks require a complete layer of bonded Liquid Plastics' Carrier Membrane prior to the application of the chosen system. The substrate should then be treated as a felt roof. (Details of Liquid Plastics Carrier Membrane are available on request).

Small wooden protrusions on any other type of roof may be primed with Bonding Primer and coated, provided that the timber is of exterior quality, e.g. plywood, oil tempered hardboard, etc.

Brick and stone

Use localised reinforcement over joints and use Bonding Primer before applying the New Decadex system.

Slates, tiles, etc.

Ensure all slates/tiles are sound and securely fastened. Replace obviously broken or missing sections; small defects may be locally reinforced for continuity. Venting of roof spaces may be necessary.

Apply Bonding Primer to slate, tiles, cement-based tiles (e.g. coping stones and tiles with a semi-glazed finish). Fully glazed tiles must be abraded prior to priming and subsequent treatment with the New Decadex system.

Plastics

Many plastic substrates such as GRP or polycarbonate may be treated, but advice should be sought from our Technical Customer Services Department for other specific applications. Usual preparation procedures should be observed. Remove any oxidised layers and use localised reinforcement over joints.

Bituminous coatings

Do not coat sticky or mobile surfaces, volatile mastic coatings or old coal tar coatings. Always use fully reinforced systems and use Bonding Primer before applying the New Decadex system.

Paints

(See also "Metals" sub-section). When applying New Decadex over previously applied coatings, ensure that the existing material is sound and firmly adhered. Bonding Primer should be used if the existing coating is porous or chalking. For further information about specific applications, please consult our Technical Customer Services Department.

Mastics

Apply without primer over any cured polysulphide but do not apply this mastic over New Decadex. High modulus silicones can be applied over New Decadex, but New Decadex will not adhere over silicone. Use Bonding Primer over cured polyurethane.

Existing Decadex

Inspect the existing membrane and check that it is still soundly adhered. Clean the membrane using a water jet at approximately 14 N/mm² (2000 p.s.i.) using detergent if necessary. Allow to dry. Use Bonding Primer before applying the New Decadex system.

Specification assistance

NBS is the industry standard specification system, which allows architects, specifiers and engineers to insert clauses into specifications by manufacturer and product, making the process quicker and more efficient. We are members of NBS Plus and therefore detailed up-to-date product information is readily available to create accurate specifications.

CONTACT DETAILS

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