# ELASTOLIQUID REFLEX

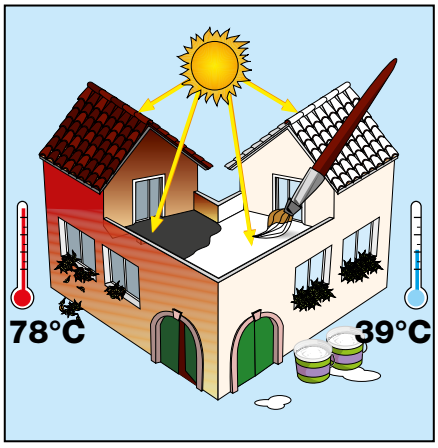
**WATER-BASED REFLECTING WATERPROOFING AGENT, FOR OLD WATERPROOFING ON EXPOSED ROOFS, FOR WATERPROOFING AND PROTECTING CONCRETE SURFACES**

GRANTS *LEED* CREDITS

| CHARACTERISTICS | | | ENVIRONMENTAL | METHOD OF USE | | | | PRECAUTIONS |
|---|---|---|---|---|---|---|---|---|
| A | $H_2O$ | | | | | | | |
| ONE-COMPONENT | WATER BASED | WATERPROOFING | ECO GREEN | MIX MECHANICALLY | SPRAY APPLICATION | APPLY BY BRUSH | APPLY BY ROLLER | STORAGE: KEEP AWAY FROM FROST |

## PROBLEM

**- WATERPROOF COMPLEX-SHAPED CONCRETE SURFACES**
**- INCREASE THE THERMAL COMFORT OF THE INTERIOR DURING THE SUMMER**
**- REDUCE THE HEAT ISLAND EFFECT**




Waterproofing and protecting complex-shaped concrete structures where the use of rolls of prefabricated polymer-bitumen membrane is difficult and where the presence of heat and naked flames increases the risk of fire.

## SOLUTION

**ELASTOLIQUID REFLEX** is a ready-to-use elastomer waterproofing coating, made with synthetic polymers dispersed in water.
After drying, **ELASTOLIQUID REFLEX** forms a tenacious film which adheres perfectly to the surface.

## APPLICATION FIELDS

**• RESIDENTIAL AND INDUSTRIAL CONSTRUCTION**
**ELASTOLIQUID REFLEX** is ideal for coating and waterproofing concrete roofs.
It is used for waterproofing concrete terraces and for protecting exposed bituminous polymer membranes. **ELASTOLIQUID REFLEX** is ideal for waterproofing terraces with floors made of: concrete, bituminous polymer membranes protected with slate chippings or mineral grit.
Its adhesion to old bituminous polymer membranes of bituminous coatings will depend on the age of the surface to which it is applied. When used on new bituminous coatings, you must apply PREPAINT to prepare the surface for ELASTOLIQUID REFLEX.
**• LIVESTOCK SHEDS**
The materials and system offered by Index contribute not only to the wellbeing of human users but also to that of livestock in intensive farming applications, which generally use lightweight shed roofs which transmit heat due to sunshine directly into the interior.
In such cases, the surface to be treated may be made of sandwich panels, metal panelling, wood, fibre cement or asbestos panels.

## ADVANTAGES

- **Waterproofs complex geometries.**
- **Reflects sunlight**
- **The fluid product is not flammable.**
- **Good protection against aggressive airborne substances.**
- **Reduces the carbonation of concrete.**
- **Non-toxic.**

ACCORDING TO EUROPEAN NORMS
EN 1504-2
CONCRETE SURFACES PROTECTION

C
PI-MC-IR
PROTECTIVE COATING

### SOLAR REFLECTANCE INDEX

**ELASTOLIQUID REFLEX**
**SRI 106**

### TEST REPORT

Solar reflectance test report
Department of Mechanical and Civil Engineering
University of Modena and Reggio Emilia

## METHOD OF USE

**• PREPARING THE SUBSTRATE**
The surface to be waterproofed must be clean and free of dirt and dust. Any holes, cracks or cavities must be filled in with RESISTO - INDEX (**1**) mortar; the slope of the roof, for allowing rain to run-off, must be reconstructed, if necessary.
**• PREPARING THE SUBSTRATE**
**ELASTOLIQUID REFLEX** must be carefully mixed in the can before use. The first coat must be diluted 5-10% with water, depending on the type of surface and how porous it is.

*(See following)*

1

2

*(See previous)*

**• APPLICATION**

It can be applied with a brush, roller or spray gun (**2**). The surface must be sloping, to allow water to run-off and prevent water and dirt accumulating on it. For good protection, apply two coats in a crosswise pattern; apply the second coat after the first coat has dried. For surfaces subject to micro-cracking, you can reinforce the **ELASTOLIQUID REFLEX** coating by applying a layer of RINFOTEX unwoven fabric reinforcement between the two coats. This increases consumption by 0.5 kg/m$^2$.

**• CONSUMPTION**

The consumption of product depends on the nature and porosity of the surface and how thick you wish the waterproofing coating to be. On average using two or more coats, for a consumption of 1.5 kg/m$^2$, yields a 1.0 mm dried film.

**• PRECAUTIONS**

- It can be applied on surfaces subject to the occasional presence of stagnating water. The waterproofing must however be arranged appropriately to drain rainwater efficiently.

Do not apply on very hot substrates because the paint filming process would be unduly accelerated with negative consequences on the cohesion and adhesion of the product to the substrate.

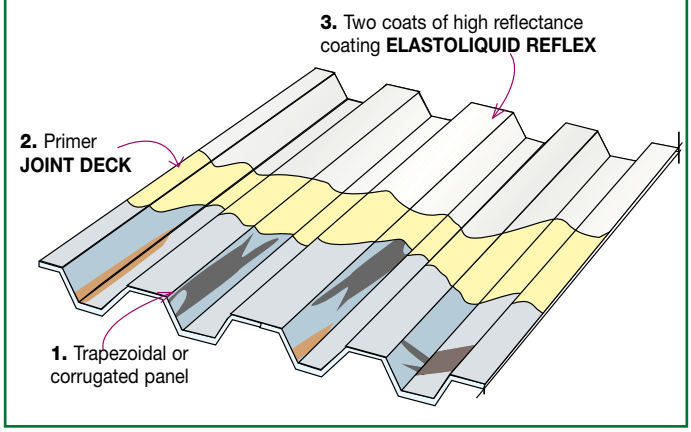
- Keep the containers sealed before use.
- Apply at temperatures between +5°C and +35°C. Extreme conditions of heat and cold must be avoided during application. Do not apply if the temperature is likely to drop below +5°C while the paint film is drying.
- Do not apply in very humid conditions or if it threatens to rain while the film is still drying.
- The product cannot be walked on except for routine maintenance.
- New, freshly applied bituminous surfaces usually have superficial 'outcrops' of hydrocarbons, which prevent the coating from adhering perfectly. You are recommended to apply the product to the surface no earlier than 6 months after they have been laid, which should be long enough to eliminate such "outcrops". However this may not always be sufficient; we recommend treating the surface with PREPAINT before using the waterproofing product. If the surface is dirty, clean by brushing and washing with water. Should it be immediately laid on a new covering, the surface of the last layer must be slated or treated with PREPAINT prior to application.
- The product must be applied in combination with RINFOTEX reinforcement on bituminous polymer membrane laid over insulating panels.
- After use, clean tools with water and, if the product has already dried, we advise you to use white spirit or hot water to remove it.
- The product is subject to freezing; store at temperatures >+5°C.

## Examples of livestock shed cool roofs

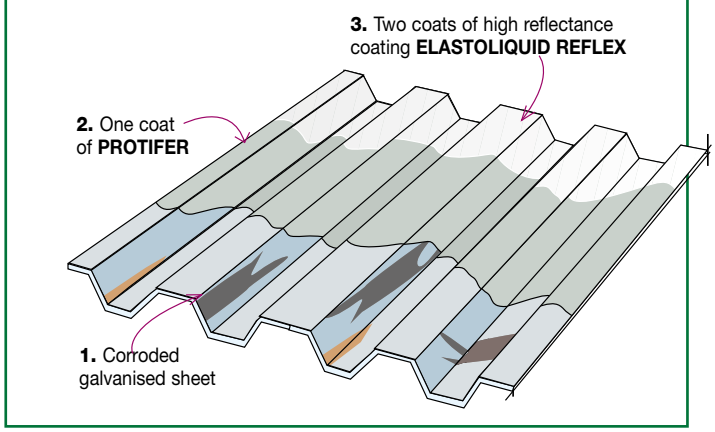
Metal roofs are very common, and corrugated fibre cement roofs are even more so; the latter are often made of asbestos cement which can be remediated with INDEX systems (see “Specification 12 – Rehabilitating asbestos cement roofs"). The roofs often also provide poor quality thermal insulation and combining reflective coatings with insulation increase the roof's performance even in the winter, by reducing its thermal dispersion. In upgrading livestock shed roofs the benefits of a cool roof are experienced by the livestock itself, which is affected by heat stress in the summer, since it is very difficult to control the micro-climate in the shed due to the metabolic heat generated by the animals themselves. This is an application of considerable economic importance, since heat stress in the summer can be injurious to the animals, degrading both their health and fertility, the quality and productivity of hens and the milk production of cows, as well as reducing the growth of rabbits, cattle and swine. for an example, see the following graphs, which show how the productivity of swine (20 - 90 kg), laying hens and milk cows varies with the ambient temperature.

For painting roofs which do not require REMEDIATION (in contrast with asbestos cement roofs): corrugated or trapezoidal metal panels, corrugated fibre cement panels or corrugated bituminous fibre panels, use **ELASTOLIQUID REFLEX ultrareflective coatings.**

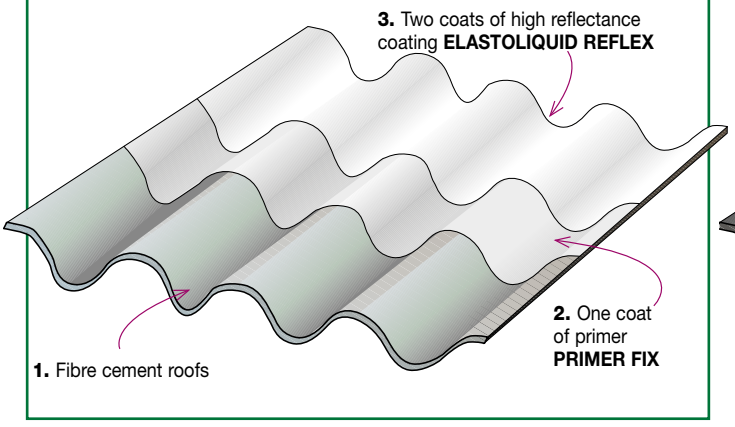
**TRAPEZOIDAL OR CORRUGATED PANELS IN GOOD CONDITION**



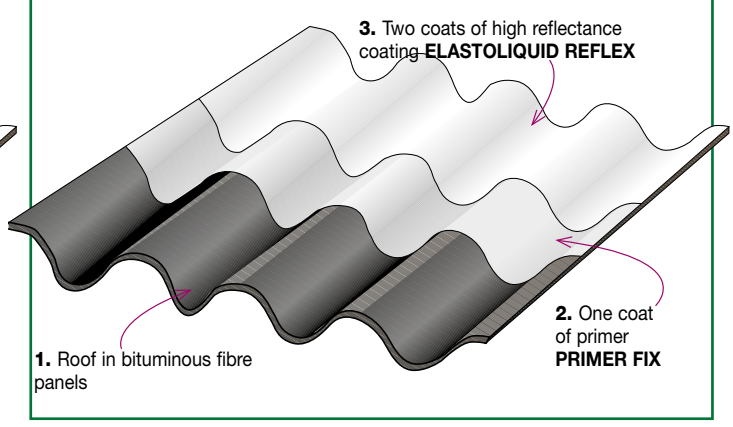

**CORRODED GALVANISED SHEET**




**FIBRE CEMENT PANELS**

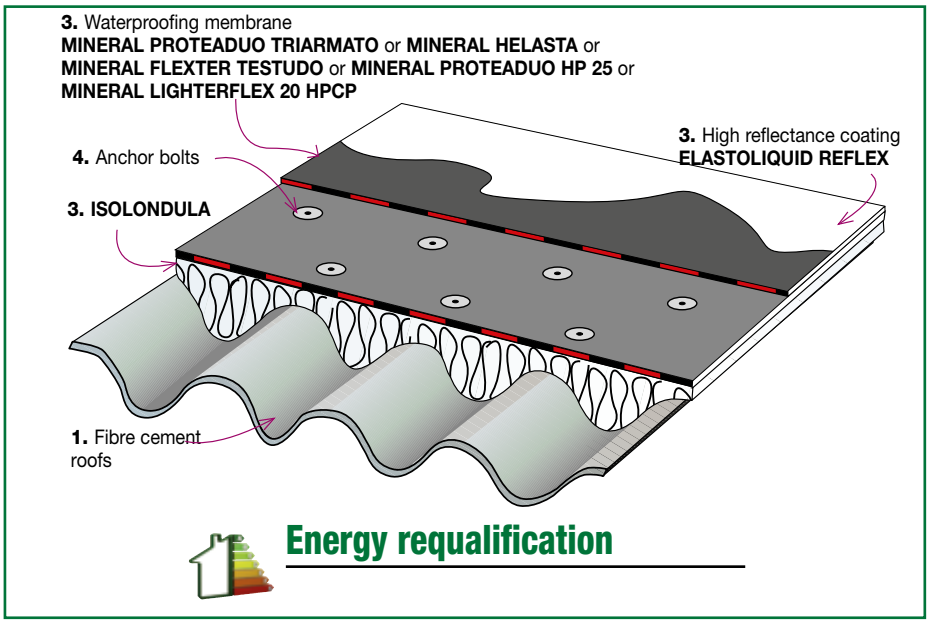



**BITUMINOUS FIBRE PANELS**

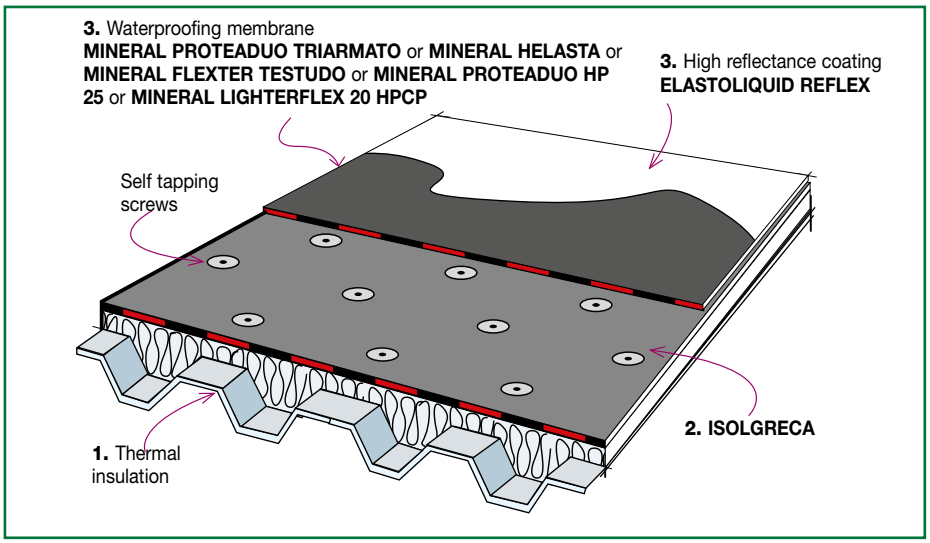


## Energy requalification of livestock shed roofs

The "Stability Law" 2016 (law n. 208, 28 December 2015) extended the tax deduction of 65% for energy requalification of buildings to 31 December 2016. From 1 January 2017, the incentive will be replaced by the tax deduction of 36% for restoration projects.
For thermally insulating corrugated fibre cement roofs, use ISOLONDULA thermal insulation panels, themselves protected by a slated waterproofing layer to which **ELASTOLIQUID REFLEX ultrareflective coating can be applied.**

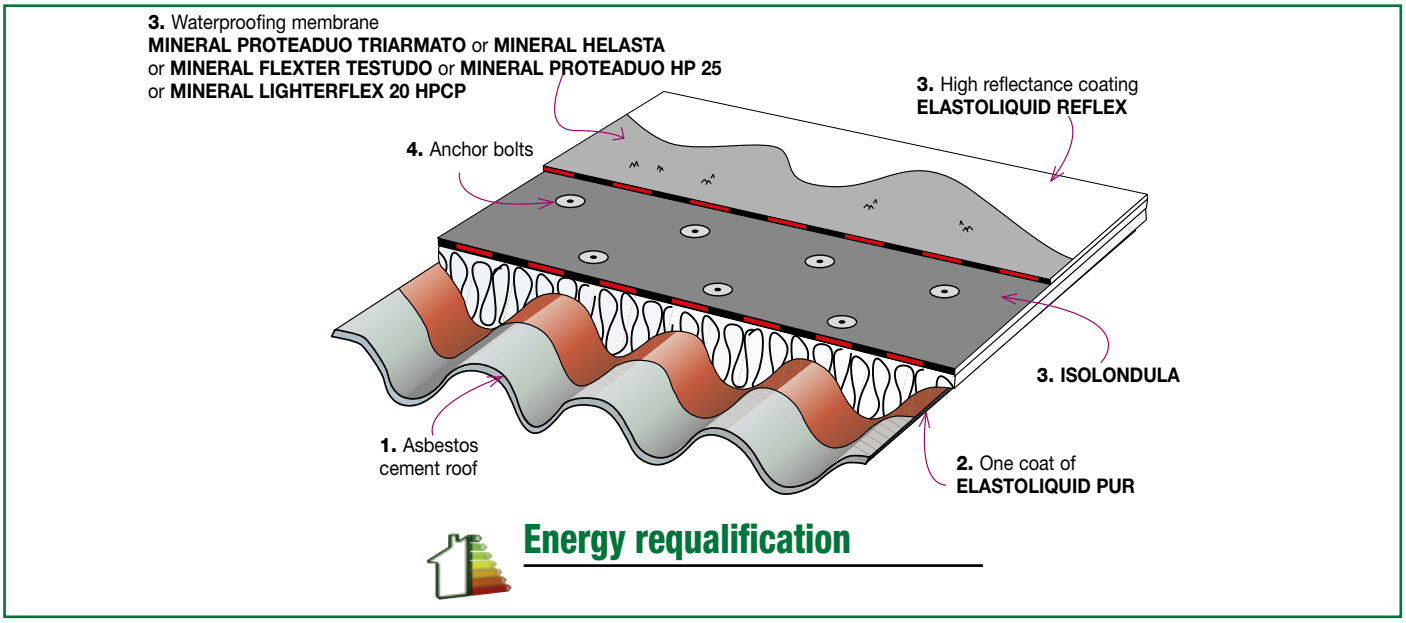



For thermally insulating trapezoidal or corrugated panel roofs, use ISOLGRECA or ISOLONDULA, themselves protected by a slated waterproofing layer to which **ELASTOLIQUID REFLEX ultrareflective coating can be applied.**




## Remediation of asbestos cement and energy requalification with cool roofs

For REMEDIATING corrugated asbestos cement roofs (pursuant to UNI 10686, March 1998, Annex 2, enacted by Decree on 20 August 1999, extension of the Law of 27 March 1992, n. 257.): Following encapsulation of the asbestos cement fibres with ELASTOLIQUID PUR, ISOLONDULA may be used for the OVERCOATING – TYPE C, itself protected by a slated waterproofing layer to which **ELASTOLIQUID REFLEX ultrareflective coating may be applied.**



## TECHNICAL CHARACTERISTICS

| | Standard | ELASTOLIQUID REFLEX |
|---|---|---|
| Appearance | | Pasty liquid |
| Colour | | White |
| Density | **Internal Met.** | 15 000 ± 5 000 cps |
| Dry residue - at 130°C | **UNI EN ISO 3251** | 78 ± 4% |
| Brookfield Viscosity | **EN 2811-1** | 1.54 ± 0.10 kg/L |
| Storage in original packaging in a dry place, away from frost | | 12 months |
| **Workability characteristics** | | |
| Application thickness | | 1.00 mm (in two coats) |
| Waiting time - for dust-free drying (*) | | 4 - 6 hours |
| Waiting time - till tack-free drying (*) | | 6 ÷ 8 hours |
| Waiting time - for total dry (*) | | 2 - 4 days |
| Application temperature | | +5°C to +35°C |
| Application | | manual or spray |
| **Performance characteristics** | **Standard** | **Product performance** |
| **Class and type** | **EN 1504-2** | **C PI-MC-IR** |
| Cold flexibility | **UNI 1109** | -25°C |
| **Permeability to water vapour** | **EN 7783** | Sd <5 m - class **I** |
| **Adhesion test** | **EN 1542** | ≥0.8 MPa |
| **Water absorption through capillarity** | **EN 1062-3** | w < 0.1 kg/m²·h0.5 |
| **Permeability to $CO_2$** | **EN 1062-6** | Sd >50 m |
| Solar reflectance | **ASTM E-903** | 0.84 |
| Solar reflectance - after ageing for 2 years | | – |
| Emissivity in the infrared | **ASTM C-1371** | 0.90 |
| SRI (Solar Reflectance Index) | | 106 (**) |
| Tear resistance | **NFT 46002** | 250 ±5% |
| Ultimate tensile strength | **NFT 46002** | 1.0 ÷ 2.0 MPa |
| Thermal resistance - Working temperature | | -10°C to +90°C |
| **Hazardous substances** | **EN 1504-2** | According note in ZA.1 |

Test conditions: temperature 23±2°C, 50±5% R.H. and air velocity in test area <0.2 m/s. **These parameters may vary based on the specific conditions of the worksite: temperature, humidity, ventilation, porosity of the substrate.**
(*) The stated times may be longer or shorter as the temperature decreases or increases.
(**) Test report Department of Mechanical and Civil Engineering - University of Modena and Reggio Emilia
Compliant with the general principles defined in **EN 1504-2** - Principles for evaluation of the use of products and systems.

## PACKAGING

20 kg bucket

the numerous possible uses and the possible interference of conditions or elements beyond our control, we assume no responsibility regarding the results which are obtained. The purchasers, of their own accord and under their own responsibility, must establish the suitability of the product for the envisaged use.

The figures shown are average indicative figures relevant to current production and may be changed or updated by INDEX at any time without previous warning. The advice and technical information provided, is what results from our best knowledge regarding the properties and the use of the product. Considering

• FOR ANY FURTHER INFORMATION OR ADVICE ON PARTICULAR APPLICATIONS, CONTACT OUR TECHNICAL OFFICE • IN ORDER TO CORRECTLY USE OUR PRODUCTS, REFER TO INDEX TECHNICAL SPECIFICATIONS •

index
Construction Systems and Products
Via G. Rossini, 22 - 37060 Castel D'Azzano (VR) - Italy - C.P.67
T. +39 045 8546201 - F +39 045 518390

Internet: www.index-spa.com
*Informazioni Tecniche Commerciali*
tecom@indexspa.it
*Amministrazione e Segreteria*
index@indexspa.it
*Index Export Dept.*
index.export@indexspa.it

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