



## **Outline Specification**

### **Elastex System to Lead Sheet Flat Roof (Waterproofing Only)**

**Please note that this is an outline specification only and may be subject to further site investigation by Polyroof Products Ltd Technical Department.**



## 1. Introduction

The following guideline specification is based on application of the advanced Elastex System to lead sheets.



*Elastex System applied to existing roof*

The Elastex System, when installed by a Polyroof approved contractor will provide the client with the following important benefits:

- ✓ **Rapid installation with minimal disruption**  
Since no stripping of the old roof is necessary there is no waste material to dispose of. Elastex can, therefore, be installed with minimal fuss, minimal surface preparation and minimal disruption.
- ✓ **Seamless membrane**  
The Elastex system provides a flexible and seamless membrane that eliminates the risk of water ingress at the weak points associated with the lap joints of sheeted roofing materials.
- ✓ **Cold applied for maximum safety**  
All Polyroof systems are cold applied so there are none of the safety risks associated with the open flames and hot torches used with traditional roll-applied systems.
- ✓ **Long term maintenance free waterproofing**  
Advanced long-term waterproofing with a finish that can be easily cleaned and requires minimal maintenance. Elastex is also BBA approved.
- ✓ **Long service life**  
When Elastex reaches the end of its service life, a further coating of Elastex membrane can be applied to rejuvenate the system and extend the working life for decades to come.
- ✓ **Flexible guarantees**  
10-25 year guarantees are available subject to requirements and substrate condition.

Please note that this guideline specification is based on preliminary discussions only. We welcome the opportunity to discuss this project further to finalise a proposal that's tailored to your exact requirements.

## 2. Specification Summary

### 2.1. Overview

The following outline specification is for a new waterproofing system only. No improvements to thermal performance will be made and any existing condensation problems will remain. Care should always be taken to establish if the existing roof construction complies with current building regulations standards in terms of thermal performance. Options on thermal upgrades are of course available on request.

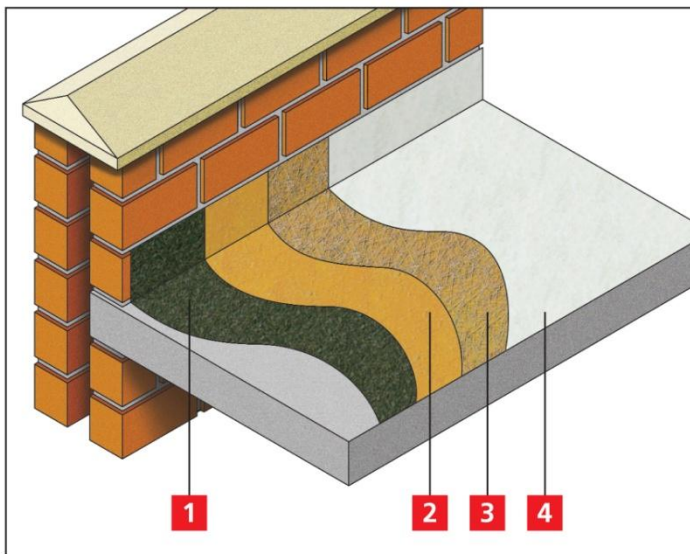
#### 2.1.1. Existing Construction (Assumed)

1. Lead sheets
2. Existing roof build-up
3. Existing support structure

*NB: Please note that the above is indicative only and subject to confirmation. Further investigation should be carried out to determine the exact construction and existing levels of insulation prior to commencement of any works.*

#### 2.1.2. Proposed Construction

##### TYPICAL BUILD-UP



- |                                      |                                    |
|--------------------------------------|------------------------------------|
| <b>1</b> Existing prepared substrate | <b>3</b> Elastex mat reinforcement |
| <b>2</b> Elastex embedment coat      | <b>4</b> Elastex protection coat   |

**Important - No deviation to the proposed construction or substitution of materials will be permitted unless advanced approval is obtained from Polyroof Products Technical Services.**



## 2.2. Preparation

### 2.2.1. Falls & Drainage

This specification utilises existing falls and any problems of standing water will remain. However you may wish to note that standing water is not detrimental to the Elastex system.

No provision to improve drainage has been made within this specification. It has been assumed that current drainage capacity is adequate.

### 2.2.2. Preparation

The existing build up is to be inspected for defects, made good where required and retained.

For wet or saturated insulation or decking, careful consideration should be given to a complete strip or the installation of permanent roof ventilation. Areas where the insulation or underlying substrate has collapsed or is defective or decayed, should be cut out, repaired and reinstated to provide a good solid base for the coating system.

Any lightning conductors are to be temporarily lifted prior to commencing works and then reinstalled upon completion by competent personnel. **IMPORTANT** – Lightning conductors must not be fixed directly through the new waterproofing membrane.

### 2.2.3. Surface Preparation

***Special attention should be given to any solar reflective coatings (especially aluminium pigmented). Adhesion tests will be required to determine if full or partial removal of the paint will be required. Please consult Polyroof Products Technical Department on 0800 801890.***

When preparing lead surfaces for treatment, ensure all precautions are taken to avoid skin contact, ingestion, inhalation, environmental contamination and unsafe disposal of debris etc.

Thoroughly clean down all areas to be treated, removing dirt, debris, surface lying water, mould growth and moss, etc.

Inspect all surfaces to assess soundness of existing substrates including any existing coatings, repairs and any test areas. This is to verify compatibility for the proposed coating system and to assess the need for priming.

Treat any areas of fungal growth or moss with Polykill “W” Anti-Fungal Wash to ensure all spores are destroyed. Powerwash to remove any residues.

Wet-abrade all lead to be coated to remove oxidation and patination. Dispose of the residues in accordance with current HSE guidelines.

Thoroughly degrease by wiping clean with Elastex Solvent. Allow to dry.

Note: Once lead has been prepared oxidation begins immediately, so work in smaller areas and prime within 1 hour of preparation.

*NB: For preparation of any other surfaces please refer to Polyroof Coatings Application Manual issued by Polyroof Products Limited.*



## 2.3. Elastex Application

### 2.3.1. Overview

The Elastex waterproofing system consists of reinforced polyurethane resin, cold applied on site by hand lay giving a seamless, joint-free construction. The system should be applied in accordance with the Polyroof Coatings Application Manual issued by Polyroof Products Limited.

### 2.3.2. Approved Contractors

Elastex should only be applied by contractors in possession of a current approval certificate. The contractor must provide an approved applicator to supervise the Elastex work and the approved applicator must remain on the site until the works are complete. Confirmation of approval can be sought by calling Polyroof Products Ltd Technical Services on 01352 735135. A final inspection shall be carried out by a Polyroof technician prior to a guarantee being issued.

### 2.3.3. Weather Considerations

The system should not be applied if the air temperature is outside the range of 3degC - 35degC. The system must not be applied in damp or cold conditions which could cause surface condensation; during frost or if there is a risk of rain.

### 2.3.4. Pigment Colour

Elastex is pre-pigmented. The recommended colour is Dove Grey. If other colours are required, always consult Polyroof technical services for advice regarding determining suitability for the application.

### 2.3.5. Primer Coat

Lead – Etch Primer at an approximate coverage rate of 12-15m<sup>2</sup>/litre. Allow to cure.

*NB: For priming of any other surfaces please refer to Polyroof Coatings Application Manual issued by Polyroof Products Limited.*

### 2.3.6. Detailing

#### ***Pre-formed Polyroof GRP Trims (Optional):***

Pre-formed Polyroof GRP trims are to be mechanically fixed to a suitable structure at 150mm maximum centres using approved fixings to form edge detailing. All angles shall be mitred and 25mm dis-bondment tape should be applied to all trim joints prior to locally reinforcing with Elastex Embedment Coat and 2 layers of 100mm Elastex Taping Mat. Allow to cure. NB: For drip trims or upstand trims additional support must be provided at trim joints in the form of butt straps or timber battens.

*NB: Pre-formed GRP trims manufactured by Polyroof Products Limited to be used.*

#### ***Lap Bridging:***

To all lap joints apply 25mm dis-bondment tape then locally reinforce using Elastex Embedment Coat and 100mm Elastex Taping Mat at a minimum coverage rate of 1.0Litres/m<sup>2</sup> (1.0m<sup>2</sup>/Litre). Allow to cure. (Any un-even lap joints may require a coat of Elastex Fibretex prior to local reinforcement).



*Important – Care should be taken with any lead roof or gutter to ensure that sufficient perimeter ventilation exists to prevent condensation (in accordance with Building Regulations and BS5250). Perimeter abutments should never be sealed as this may reduce natural ventilation and increase condensation risk.*

**Other Details:**

To any other details requiring local reinforcement apply Elastex Embedment Coat and 100mm Elastex Taping Mat. Allow to cure. NB: Apply 25mm dis-bondment tape to any joints subject to movement prior to application of local reinforcement.

**2.3.7. Elastex Embedment Coat Application**

Apply Elastex Embedment Coat and Elastex Mat at a minimum coverage rate of 1.0Litre/m<sup>2</sup> (1.0 m<sup>2</sup>/Litre). Allow to cure. NB: Please note that all coverage rates are indicative only and it is the contractors' responsibility to ascertain the exact coverage rates on site.

**2.3.8. Elastex Protection Coat Application**

**10 Year System Option:**

Apply Elastex Protection Coat at a minimum coverage rate of 0.5Litres/m<sup>2</sup> (2.0m<sup>2</sup>/Litre). Allow to cure.

**20 Year System Option:**

Apply 1<sup>st</sup> coat of Elastex Protection Coat at a minimum coverage rate of 0.5Litres/m<sup>2</sup> (2.0m<sup>2</sup>/Litre). Allow to cure.

Apply 2<sup>nd</sup> coat of Elastex Protection Coat at a minimum coverage rate of 0.5Litres/m<sup>2</sup> (2.0m<sup>2</sup>/Litre). Allow to cure.

*NB: Please contact Polyroof Products Ltd Technical Services for details of other options available.*

**2.3.9. Anti-Slip Finish (Optional)**

Elastex is designed to accept pedestrian foot traffic associated with normal maintenance operations; however, optional anti-slip finishes are available. Specifications are available upon request from Polyroof Products Ltd Technical Services.

**2.3.10. Inspection**

On completion of each coat check for pinholes / misses and rectify accordingly.

**2.3.11. Protection of Finished Membrane**

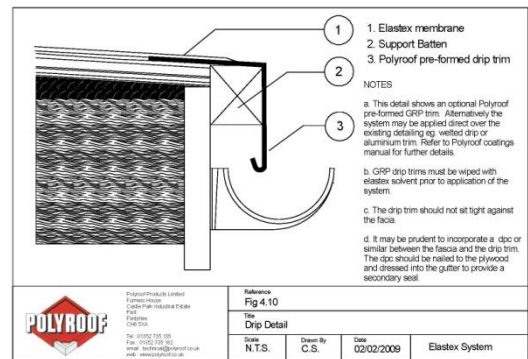
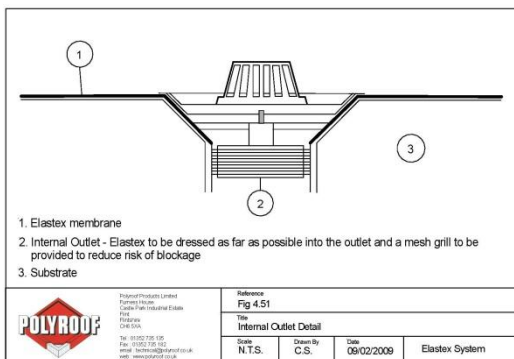
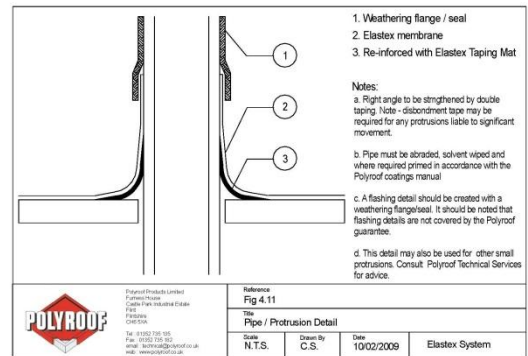
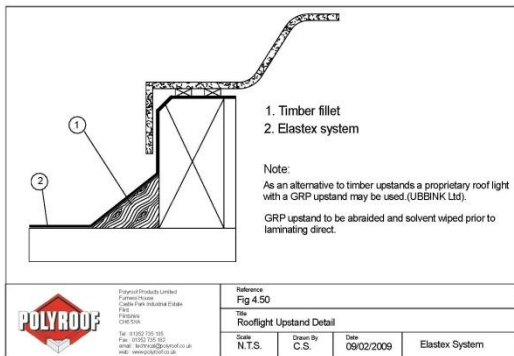
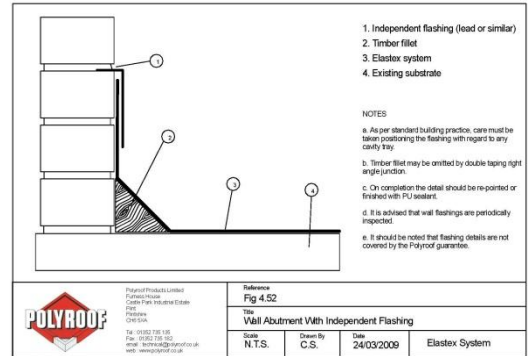
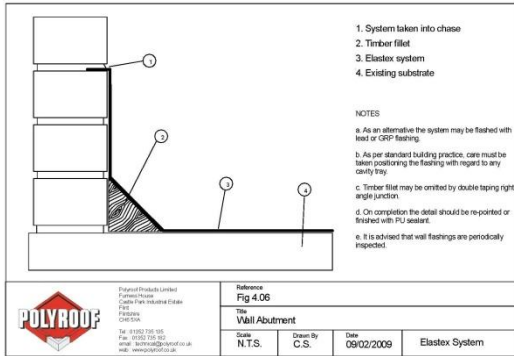
In the event of other trades working on or adjacent to the roof area, the client must make adequate provision to prevent damage to the roofing system, by other trades. Site specifics should be discussed with the Approved Contractor.

**2.3.12. Additional Items**

Should the client wish to install additional items such as paving slabs or timber decking please consult Polyroof Products Ltd Technical Services prior to the commencement of any project.

### 3. Roof Details

The following are typical roof details. Please note that further site investigation may be required to identify all roof details and to determine the required action to ensure they are left in a fully watertight condition.







*Notes:*

Care should be taken to ensure all roof details are fully prepared and primed in accordance with the Polyroof Coatings Manual.

Roof termination details should have a minimum 150mm upstand height above the finished surface of the roof and should be terminated into a chase or have a suitable cover flashing or weathering flange. Any details where this cannot be achieved will require periodic inspection and maintenance.


All redundant roof details are to be removed prior to the commencement of works. The roof area underneath is to be made good as required, ensuring that it matches the build-up of the surrounding roof area.

A comprehensive range of CAD details are available for download from [www.polyroof.co.uk](http://www.polyroof.co.uk)



## 4. Guarantee Details

*10 – 25 Year Guarantees available subject to requirements and substrate condition.*



# Elastex

## GUARANTEE

*Polyroof Products Limited guarantee the Elastex Roofing System when applied as detailed below and in accordance with their manufacturers instructions has an effective waterproof life for the total period of the guarantee.*

*The limit of liability to Polyroof Products Limited under this guarantee is to the replacement of the necessary Elastex roofing material to a watertight condition.*

*Problems emanating from sources other than direct faults with the Elastex material are not covered.*

*Nothing herein shall in any way be taken as limiting or otherwise restricting the statutory rights of the customer.*

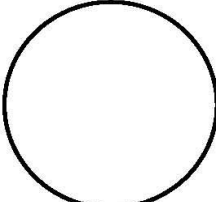
**DETAILS OF CONTRACT**

Client:	
Address:	
Contractor:	
Contractor's Address:	
Contract Number:	
Original Roof:	
Embedment Batch No:	Primer Type:
Protection Coat Batch No:	Primer Batch No:
Colour:	Area of Roof:
Completion date:	Total Cost: £

\_\_\_\_\_  
Director  
Polyroof Products Limited

*For service contact Contractor.  
The roof should be inspected annually and defects reported to the address below. Claims to be made within 5 days of fault becoming evident and producing this original guarantee on request.*

**Furness House, Castle Park Industrial Estate, Flint, Flintshire CH6 5XA**

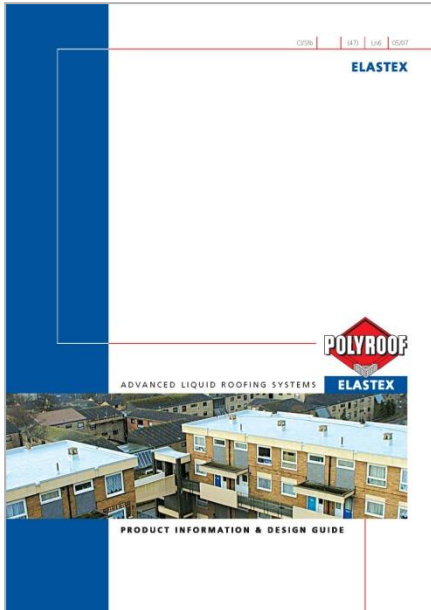


SAMPLE

## 5. Further Reading

The following may also be of assistance to Specifiers. These brochures, along with our full literature range is available on request from technical services on 0800 801890 or for download at [www.polyroof.co.uk](http://www.polyroof.co.uk)

### 5.1. Elastex System Product Information and Design Guide



### 5.2. Elastex System BBA Certificate





## 6. Health & Safety

### 6.1. Risk Assessments / Method Statements

It is the responsibility of the contractor to ensure that adequate risk assessments (including COSHH assessments), and method statements are carried out prior to commencement of works.

### 6.2. Materials Safety Data Sheets

It is the contractor's responsibility to ensure that all relevant material safety data sheets are on site at all times. Additional copies of these sheets are available on request from Polyroof Products Ltd.

### 6.3. Solvent Control

Many solvents are subject to Workplace Exposure Limits (WEL) set by environmental legislation. This is the maximum level of solvent in the air usually measured in parts per million to which any individual should be exposed over an 8 hour period.

Tests carried out on site have indicated that neither the operatives fitting our systems, nor people in the building below should experience solvent levels within 10% of the WEL. The contractor carrying out the work is obliged to carry out a risk assessment to ensure sensible precautions are taken such as the isolation of air intakes to the building and the avoidance of working within confined spaces which could increase the exposure levels beyond those of our testing.

It should be born in mind that solvent odour is very strong. It takes only a few parts per million within the air to detect the odour. To assure occupants of the building who may be concerned about an unfamiliar smell we advise the pro-active measures of advising that there is a likelihood of the odour being present.

### 6.4. Solvent Measuring

In sensitive areas it is usually possible to monitor the atmosphere for levels of solvents, and potentially hazardous fumes by using specialist testing equipment. With most products portable site testing equipment may be used that will give an immediate indication of the concentration of specific solvents in the atmosphere. This can show that the appropriate Workplace Exposure Limit is not being exceeded. In rare circumstances the services of specialist industrial hygiene companies may be required.

**The contractors risk and COSHH assessments should identify if there is a need for atmospheric monitoring.**



## 7. Polyroof Products Limited Company Profile

### Introduction

Polyroof Products Ltd is one of the country's leading producers of cold liquid-applied roofing systems. Some ten million square metres of Polyroof have been laid since the company was first established in 1984. Polyroof is a well known and well respected name in the flat roofing industry with over 100 local authorities now specifying our systems, together with major housing associations, developers, airports, breweries and other industrial and commercial organisations throughout the country. Likewise in the domestic market, Polyroof has brought peace of mind to many thousands of homes by providing a permanent solution to persistently leaking roofs.

### Quality Control

Polyroof Products Ltd operates comprehensive and rigorous quality control procedures in accordance with ISO 9001:2008. The scope of this approval includes the design and installation of roofing systems, the provision of technical support, as well as the appointment and monitoring of installers. Not only is the manufacture of Polyroof liquid applied roofing systems and accessories quality approved, but so too is the procurement, storage and supply of all related materials and consumables.

### Certification and Guarantees

Polyroof Products Ltd offer a range of guarantees according to the clients requirements. Flexible guarantees of 10-25 years are available, subject to specification when applied by approved contractors. The Polyroof 185 system, which is exclusively installed onto a new, exterior-grade plywood deck, also carries an independent insurance backed 20-year guarantee. All our core flat roofing products: Polyroof 185, Protec and Elastex, have received the British Board of Agrément (BBA) Certificate, an official and independent assurance of reliability; which indicates minimum durability ratings of 20-30 years for our systems. Furthermore our Protec system is also Factory Mutual (FM) and Underwriters Laboratory (UL) approved.

### Approved Contractors

To maintain the highest standards of quality, it is essential that Polyroof products are applied correctly. You will, therefore, find that Polyroof systems are only supplied and installed by contractors who are fully trained and licensed by the company, to ensure consistent installation quality and service. Contractor's performance is regularly monitored and random installation inspections are carried out to maintain our highest standards. Training not only includes the theory of how the systems should be laid, but also involves on site work with Polyroof technical staff working alongside contractors - or potential contractors - on a roof installation. Not every contractor who approaches us will meet our tough assessment criteria.

### Polyroof Technical Support

We provide a high level of on-going technical support before, during and after every contract. Our technical team will, when required, carry out surveys and produce detailed roof specifications, drawings and proposals. A freephone technical helpline ensures that contractor's questions as well as enquiries from architects and specifiers are dealt with quickly and efficiently.

### Environment

Polyroof Products Limited is committed to fulfilling its environmental responsibilities and minimising any impact that our products or processes may have on the environment. All Polyroof resins are manufactured in accordance with either ISO 14001 or with the Coatings Core Programme of the International Paint and Printing Inks Council. Further details on our environmental policy can be found in our 'Health, Safety & Environment' brochure, which is available on request and can be downloaded from [www.polyroof.co.uk](http://www.polyroof.co.uk)