



TECHNICAL GUIDANCE

GUARANTEES

A GUIDE FOR CLIENTS AND DESIGNERS

ENSURING THAT CLIENTS OBTAIN
HIGH QUALITY POLYMER-BASED
SINGLE PLY ROOFING, THROUGH A
PARTNERSHIP OF QUALITY ASSURED
MANUFACTURERS AND CONTRACTORS

GUIDANCE DOCUMENT

GUARANTEES – A CHECKLIST FOR CLIENTS AND DESIGNERS

In the past, flat roofs had a poor reputation due in part to the use of low performance materials in highly demanding applications and to a low level of skill in their construction. The arrival of single ply technology with its extreme resistance to environmental ageing and strict controls on the supply of product only to trained contractors has changed the fortunes of this flexible approach to roof covering. However in spite of the manifest reliability of these systems, there remains a lack of momentum in understanding and confidence, which is often reflected in confused specification. For example, the important distinction between durability, service life and guarantee term deserves clarification.

For the purposes of this guide, durability is the period over which a component - usually the waterproof covering - will deliver its intended performance. In the absence of damage by human activity, the durability of single ply membranes in the popular exposed 3 warm roof configuration is determined by their resistance to solar radiation (UV and heat), rain/snow/ice and wind load. This effect is assessed by certification bodies¹ through a combination of artificial ageing tests and actual site experience. Typical durability statements for single ply membranes supplied by SPRA manufacturers range from 25 in excess of 30 years and these are increasing as experience grows.

Service life is best used to describe the economic lifespan of a roof system, i.e. the period during which the annualised cost of purchase and maintenance is less than the annualised cost of its replacement. Service life is therefore influenced by design (for example to reduce mechanical stress or afford protection from human activity) and by normal planned inspection programmes.

A guarantee is a manufacturer's promise to compensate a customer in the event of failure of a roof covering, a combination of components or the total roof system. It bears little relation to durability or service life but rather is an acceptance by a manufacturer of financial risk in order to instil confidence. It is based upon the manufacturer's method of risk management, experience of the product and certainty as to the quality and consistency of its production.

A manufacturer may choose to offer a similar specification whether asked for a ten year or twenty year product guarantee, but that manufacturer may wish to fund the risk that they have taken, perhaps through the cost of the product. Another manufacturer may choose to determine the guarantee period by the thickness of the membrane, the cost difference between each thickness funding the risk taken.

The challenge for the designer is how best to protect the client by specifying an appropriate durability and guarantee term whilst aiming for a design which ensures a predictable service life and low cost in use.

QUALITY CRITERIA

SPRA sets quality criteria to ensure clear, independent statements as to durability and consistent production and traceability. Membrane manufacturers must:

- Have independent certification of all their membrane products by a member of the UEAtc².
- Manufacture under a factory production control scheme independently monitored for conformity with ISO9001:2008.
- Declare the products conformity with the harmonised product specification for polymeric sheets, EN13956 and affix the CE mark.

¹ For example in the UK, the British Board of Agrément

² Union Européen d'Agrément - Technical Committee

³ PVC Polyvinyl Chloride

⁴ Flexible Polyolefin

⁵ See www.fsa.gov.uk

⁶ Financial Services Authority

⁷ See www.fsa.gov.uk - Financial Services regulations

⁸ Financial Services Authority

Experience shows that in the very unlikely event of a membrane product developing a fault due to manufacture or formulation, the effect will be manifest to a reasonably skilled surveyor within a period of perhaps five years.

The correct installation of a roof system is critical to its service life. Here again, defective workmanship is likely to be manifest in the early years, either through increased maintenance, poor appearance or in the extreme, roof leaks. SPRA seeks to deliver quality by requiring that product is only supplied to contractors whose operatives have passed an off-site training programme approved by SPRA Council. Approval cards issued to operatives or employers must be subject to review and have a maximum five year life. SPRA membrane manufacturer are also required to post-inspect all work where a guarantee is to be offered.

DO YOU KNOW WHAT TO ASK FOR AND WHAT IS ON OFFER?

The following is a suggested checklist

1. What is to be covered?

- Membrane product only
- Membrane product and attachment of product only
- Membrane product, attachment of product and attachment workmanship
- Membrane product and all installation workmanship
- Total system including insulation, vapour control layer etc.
- Any of the above, previous with design cover.

A workmanship guarantee may be offered by the roofing contractor or the roofing membrane manufacturer. In the first instance, the contractor may countersign the manufacturer's guarantee or offer a separate guarantee, though the latter are difficult to obtain for long terms.

It is important to differentiate between workmanship only and workmanship with insolvency protection. If the manufacturer offers protection against insolvency of the contractor it may be interpreted as an offer of insurance and so would come within the requirements of the Financial Services Regulations (see below).

2. Is damage to ancillary components included?

Ancillary components might include roof lights, safety systems, low and zero carbon energy conversion equipment.

3. Is consequential damage to be included?

For example if one of the components beneath the membrane fails, who pays to remove and replace the membrane? What other damages are recoverable, such as decorations or damaged fixtures and fittings?

4. What is the required term of the guarantee?

The guarantee term is frequently inversely proportional to the client's confidence. Analysis of claims shows that a ten year term will generally protect adequately against product or workmanship failure because a problem with either will be manifest quickly. For example, the term in France is typically 5 years. Long term guarantees may be expensive but ultimately not called upon or the policy may be inadvertently invalidated by repair or following modification works, changes of ownership or tenure.

5. How is the guarantee underwritten?

Is it underwritten for some or all of the guarantee period? If underwritten by the assets of the company itself, then what are those assets and are they secure?

6. Is the guarantee transferable?

If so, is there a limitation on the number of times? And is there a cost to do so?

7. Is the guarantee based upon a single premium, in which case, is its cost identified in the cost of the product?

It is reasonable to expect a supplier of goods or services to identify that part of their quotation that covers any guarantee being offered. In the case of a separate contract for supply of an insurance-backed guarantee this will be clear but in other circumstances it may be reflected in the cost of the product or restrictions as to the products that must be used.

8. Does the guarantee entail stage inspections and additional premiums during service?

The terms of some long-term product guarantees require an inspection after say ten or fifteen years and the repair of any items identified. It is important to identify such terms and to establish any future budgetary implications.

WHAT CAN SPRA MEMBERS OFFER

All SPRA manufacturers (membranes and associated components) are required to offer **as a minimum** a product-only guarantee for a period of at least ten years. The terms must be clear and comprehensive. In the event of complaint, the Association may investigate.

In addition, SPRA membrane manufacturers have committed to the following features in the guarantees that they offer:

- Are in favour of the ultimate building owner, rather than the tenant of leaseholder.
- Are endorsed by the installing roofing contractor.
- Clearly state what products and aspects of design are covered.
- Where workmanship is covered, clearly state the provider and whether the policy is annual or project-specific.
- Clearly state exclusions.
- Clearly state the value of cover.
- Clearly state any notice period, which must be reasonable.
- Are accompanied by maintenance terms & conditions

All membrane products offered by SPRA membrane manufacturers must be independently certificated for performance. This certificate includes a statement of product durability based upon field experience and artificial ageing.

SPRA membrane manufacturer must be able to trace their product to its eventual destination in a roofing project. They must supply only to contractors registered with them and who employ or subcontract to installers trained in the particular product. Separate training courses are required for wholly different polymer types such as PVC¹ and FPO².

SPRA membrane manufacturers are required to inspect all projects where a guarantee is offered and to record in detail the findings of such an inspection.

THE FINANCIAL SERVICES REGULATIONS

The Financial Services Regulations⁷ implemented in November 2006 effectively banned contractors and manufacturers from offering insurance-backed policies. Either the supplier of the goods or services must be registered with the FSA⁸ or they must only direct the client towards a suitably registered provider. Any contract of insurance must be directly between the client and the insurer (or their agent). The FSA should be contacted in cases of doubt because interpretation is difficult.



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