A Design & Technical Guide

BriggsAmasco

FlexiPhalte

Waterproof Vehicle Deck Surfacing Systems
Triple Protection Roofing & Structural Waterproofing Systems
Flat Roofs Without Vehicular Traffic

Flexiphalte Triple Protection Roofing & Structural Waterproofing Systems

Some designers, although liking asphalt as a material, do not favour the loose laid application of the material to the substrate and prefer a fully bonded system to eliminate any potential tracking of moisture in the unlikely event of a leak.

Combine Flexiphalte Pommar with a specially designed flexible polymer modified bitumen coated membrane which will accept the direct application of Flexiphalte Pommar, and you can have a system that is fully bonded to the substrate. This gives all the advantages of membranes and asphalt in one combination and is covered by our Agrément Certificate.

Various specifications are available. These start with a standard version of 10mm of Flexiphalte waterproofing combined with the high performance membrane increasing, if situations dictate, up to 35mm of Flexiphalte with the membrane for heavier duty applications such as green roofs and roof gardens. For structural waterproofing for podiums and roadways, a layer of Flexiphalte paving grade asphalt can be incorporated giving a typical composition of membrane + 10mm of waterproofing grade Flexiphalte and 25mm paving grade Flexiphalte – providing an extremely robust installation designed to withstand the ‘rigours’ of the project ‘Construction Phase’

These specifications are designed to be laid ‘dead flat’, thereby eliminating the need for a screed or having to lay the structural slab to falls and, when fully protected and subject to normal service conditions, are guaranteed for 20 years and are intended to last for the designed life of the roof/substrate upon which they are installed.

Lasting for Life
Assessed by the BBA as having the durability to last the designed life of the structure, Flexiphalte Triple Protection Roofing and Structural Waterproofing Systems are deemed to remain watertight for the designed life of the roof/substrate upon which they are installed (when fully protected and subjected to normal service conditions). These systems have great ‘buildability’ and are highly resistant to site damage, unlike many alternative systems.

Installed by Experts
Flexiphalte Triple Protection Roofing and Structural Waterproofing Systems are installed by BriggsAmasco’s team of skilled craftsmen which ensures a total unified responsibility package and total peace of mind.

The Best Technical Support
BriggsAmasco offers an unrivalled level of technical support and expertise, including full specification support, CAD design and advice and guidance from specification to maintenance of the Flexiphalte system.

Flat Roofs
Without Vehicular Traffic

Flexiphalte Pommar polymer modified mastic asphalt
2. Flexiphalte Baryprene (B3A) high performance membrane
3. Primer
4. Float finish concrete
Technical Specification

1 Product/Systems Data

1.1 Flexiphalte Triple Protection
Roofing and Structural
Waterproofing Systems consist of Flexiphalte
Pommar and Flexiphalte
Baryprene which are fully
bonded to each other and
to the substrate which
should have a float finish.

1.2 Flexiphalte Pommar
is manufactured by
mixing an asphaltic
cement with filler and
coarse aggregate using
conventional techniques.
The asphaltic cement is
made by blending bitumen,
a polymer and other
additives.

Table of weights (Approximate)

<table>
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<th>Thickness (mm)</th>
<th>KG/m²</th>
<th>Length (m)</th>
<th>Width (m)</th>
<th>Weight per unit area (kg/m²)</th>
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1.3 Flexiphalte High
Performance is a polymer-
mixed membrane
reinforced with a 50gm-2
glass-fibre mat, with talc
on the upper surface
and sanded finish on
the underside. The
membrane is for use as a
higher specification
alternative to a traditional
underlay and fully bonded
using traditional pour
and roll methods. The
membrane has the nominal
dimensions of:

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>Length (m)</th>
<th>Width (m)</th>
<th>Weight per unit area (kg/m²)</th>
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<tbody>
<tr>
<td>2.5</td>
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</tbody>
</table>

1.4 Flexiphalte Baryprene
Plus (B3A) is a polymer-
mixed membrane with
an embossed aluminium
foil on the upper surface
and a sanded finish on the
underside. The membrane
is for use as an alternative
to the Flexiphalte High
Performance membrane
and is fully bonded
using traditional pour
and roll techniques. The
membrane has the nominal
dimensions of:

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>Length (m)</th>
<th>Width (m)</th>
<th>Weight per unit area (kg/m²)</th>
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<td>3.2</td>
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</tbody>
</table>

2 Characteristics

2.1 Durability BRE Digest 144
states that "Asphalt roofing
properly designed and
laid should be capable of
lasting 50 to 60 years" Test
data shows that Flexiphalte
Pommar has improved
high temperature stability
and is more flexible at
low temperatures than
conventional mastic
asphalt. On the basis of
available data, Flexiphalte
Pommar should have a life
expectancy in excess of
that of conventional grades
of mastic asphalt used in
waterproofing applications.
This is confirmed by the
BBA.

2.2 Fire Resistance Flexiphalte
Pommar fulfills all the
requirements for a roof
covering as given in BS 5588:
‘Fire precautions
in the design and
construction of buildings’
Part 1: Section 1.1: 1980
and achieves the highest
rating (P60) under the test
requirements of BS 476:
Part 3: 1975 External fire
exposure roof test’.

2.3 Compressive Strength
When Flexiphalte Pommar
is fully confined it has the
same compressive strength
as the containing material...
When not confined, the
compressive strength is
dependent upon a number
of factors including the
temperature to which it
may be subjected.

2.4 Thermal Conductivity
Flexiphalte Pommar has a
K value of between 0.43
- 1.15 W/m°C and does
not significantly contribute
to the overall thermal
insulation of the roof. A K
value of 0.50 W/m°C may
be assumed for design
purposes.

2.5 Toxicity Flexiphalte
Pommar is non toxic and is
generally suitable for use in
contact with potable water.

2.6 Odour Flexiphalte Pommar
is odourless after laying.

2.7 Vapour Resistivity The
vapour resistivity of
Flexiphalte Pommar is very
high and can be assumed
to be not less than 100,000
Mn/gm.

2.8 Resistance to biological
attack Flexiphalte Pommar
is vermin proof and rot-
proof.

2.9 Thermal expansion
Flexiphalte Pommar
is thermostatic and
is capable of
accommodating normal
movements encountered
in well-designed building
structures.

2.10 Resistance to water
Flexiphalte Pommar is
impervious to water.
Typical installation details using triple protection

- Pointing and Chase by Others
- Asphalt Skirting
- Gravel Ballast/pc Paving slabs on supports on insulation board

- DPM Pointing and Metal Cover Flashing by Others
- Asphalt Skirting
- Gravel Ballast/pc Paving slabs on supports on insulation board

- FlexiPhalte Pommar Roofing on FlexiPhalte Baryprene Membrane Fully Bonded to Substrate
- Concrete
- Brickwork

- Lead or metal Capping, By Others
- Watertight Cravat, By Others
- Asphalt Skirting

- FlexiPhalte Pommar Roofing on FlexiPhalte Baryprene Membrane Fully Bonded to Substrate
- Plinths (Such as Cradle Track Plant Bases)
- Concrete
- Brickwork

- Sealant
- Termination Bar
- Insulation Board
- Asphalt Skirting
- High Performance Mineral Sulfated Felt Flashing
- Gravel Ballast/pc Paving slabs on supports on insulation board

- DPM Pointing and Metal Cover Flashing by Others
- Pointing and Chase by Others
- Insulation Board (Cementitious Faced)
- Asphalt Skirting
- Gravel Ballast/pc Paving slabs on supports on insulation board