WHERE TO USE
For waterproofing and protecting:
• flat roofs;
• paving slabs;
• cupolas and curved roofs.

Once the substrate has been prepared (see relative preparation section) Aquaflex Roof may be used on:
• ceramic and stone coatings;
• cementitious screeds and screeds made using special binders (Topcem and Topcem Pronto);
• concrete;
• existing bitumen sheaths;
• wooden trimmings;
• galvanized sheet, copper, aluminium and iron.

TECHNICAL CHARACTERISTICS
Aquaflex Roof is a ready-to-use coloured waterproofing product for external applications made from synthetic resins dispersed in water, and when dry forms a continuous, flexible, waterproof membrane. Aquaflex Roof is resistant to all atmospheric conditions and UV rays, and guarantees long-lasting protection for the substrate.

Aquaflex Roof is easy to apply using a long-haired roller, brush or spray on horizontal, sloping and vertical surfaces. Once dry, Aquaflex Roof forms a strong, flexible, tack-free coating, suitable for occasional light foot traffic.

Due to its flexibility, Aquaflex Roof is compatible with normal dynamic expansion and contraction stresses caused by temperature variations and vibrations.

Aquaflex Roof complies with the principles defined in EN 1504-9 (“Products and systems for protecting and repairing concrete structures: definitions, requirements, quality control and conformity assessment. General principles for the use of products and systems”) and the requirements of EN 1504-2 coating (C) according to principles PI, MC, RC and IR (“Concrete surface protection systems”).

RECOMMENDATIONS
• Do not use Aquaflex Roof if the temperature is lower than +5°C or higher than +35°C, or if rain is imminent.
• Do not apply if there is dew on the substrate.
• Do not apply Aquaflex Roof on wet substrate or on substrates with rising damp.
• Apply Aquaflex Roof on surfaces without depressions or hollows and, where required, with the correct amount of slope.
• Do not apply Aquaflex Roof on weak or dusty substrates.
• Do not apply Aquaflex Roof on painted metal substrates.

• If it rains between one coat and another of Aquaflex Roof, wait at least 12 hours before applying the next coat, and only if there is no residual moisture, otherwise adhesion between the two coats could be affected.

• Do not use on bituminous membranes that have only recently been applied (<6 months). Always wait until the surface to be treated has completely oxidised.

APPLICATION PROCEDURE
Preparation of the substrate
All substrates, whether they are new or old, must be solid, clean, dry and free of all traces of oil, grease, old paint, rust, mould and any other material which could compromise the bond.

Concrete and in general mineral substrates must be solid and dry with no rising damp. Any loose parts must be removed. Any hollows in the surface must be repaired with Mapeslope. Prime the surface with a coat of Aquaflex Roof diluted with 10% of water.

All wax, water-repellent treatments, etc. must be removed from the surface of ceramic substrates with a suitable detergent and/or by sanding. On old ceramic floors with gaps in the joints between the tiles, grout the joints with Adesilex P4 before applying Aquaflex Roof. Apply Eco Prim Grip on non-absorbent ceramic substrates, while on any other type of substrate apply Aquaflex Roof used as primer diluted with 10% of water.

If applied on existing bituminous membranes, carefully hydro-blast the surface, wait until the water has drained off and treat the surface with Primer for Aquaflex.

When applying the product on metal substrates, thoroughly clean the surface and apply a coat of Eco Prim Grip primer.

Before applying Aquaflex Roof, pay particular attention to the expansion joints and the fillets between horizontal and vertical surfaces, which must be waterproofed using Mapeband Easy, rubber tape sandwiched between two layers of non-woven fabric, or Mapeband SA, self-adhesive butyl tape, Mapetex 50 (h 20), bonded to the substrate with Aquaflex Roof. Structural joints must be waterproofed with Mapeband TPE bonded in place with Adesilex PG4. Use a suitable kit from the Drain range to seal any drains.

Preparation of the product
The product is supplied ready to use. It is however recommended to mix the contents to perfectly blend the product.

Application of the product
Aquaflex Roof must be applied with a long-haired roller, brush or airless spray. Apply two dry coats of Aquaflex Roof approximately 0.4-0.5 mm thick each. Wait until the first coat is completely dry and that it becomes slightly darker in colour before applying the next coat. The second coat must be applied in a criss-cross direction to the previous coat. The dry thickness of Aquaflex Roof must never be less than 0.8-1 mm. If the substrate has micro cracks, insert Mapetex 50, non-woven polypropylene fabric between the two layers of Aquaflex Roof. Spread on a generous coat of Aquaflex Roof. While gradually applying the product, immediately lay the Mapetex 50 and go over the surface with a flat spreader or spiked roller to ensure it is perfectly wetted. Spread on a second coat of Aquaflex Roof once the first coat is completely dry to cover completely Mapetex 50. Protect the Aquaflex Roof membrane from rain until it is completely dry.

Cleaning the tools
Tools must be cleaned with water immediately after use.

CONSUMPTION
Waterproof membrane: at least 2 kg/m². Protective finish on bitumen membranes:
– approx. 0.5 kg/m² on smooth membranes.
– approx. 0.9 kg/m² on mineral-filled membranes.

The consumption rates indicated are for a seamless film on a flat surface and could be higher on uneven substrates and according to the absorbency of the substrate.

PACKAGING
20 kg and 5 kg drums.

COLOURS AVAILABLE

<table>
<thead>
<tr>
<th>Colour</th>
<th>RAL 6005</th>
<th>RAL 7013</th>
<th>Black 9005</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Grey</td>
<td>Brick red</td>
<td>Oxide red</td>
</tr>
</tbody>
</table>

STORAGE
Aquaflex Roof may be stored for up to 24 months in its original packaging in a dry place. Protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION
Aquaflex Roof is not considered hazardous according to current norms and guidelines regarding the classification of mixtures. It is recommended to use protective gloves and goggles and to take the usual precautions for handling chemicals.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

WARNING
Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above...
Aquaflex Roof: ready-mixed liquid elastic membrane with fibres for waterproofing exposed surfaces. Complies with the requirements of EN 1504-2 coating (C) principles PI, MC and IR

TECHNICAL DATA (typical values)

PRODUCT IDENTITY
Consistency: paste
Colour: oxide red, grey, white, terracotta red, green 4040G70Y, Ral 6005, Ral 7013, black 9005
Density (g/cm³): 1.35
Dry solids content (%): 64
Brookfield viscosity (mPa-s): 36,000 (# 6 - 10 rpm)

APPLICATION DATA
Application temperature: from +5°C to +35°C
Waiting time at +23°C and 50% R.H.: – between Primer for Aquaflex and 1st coat: approx. 5-6 h; – between two coats of Aquaflex Roof: approx. 8 h
Ready for use at +23°C and 50% R.H. (h): approx. 48

MECHANICAL CHARACTERISTICS
Elongation at failure (ISO 37) (%): 300
Tensile strength (ISO 37) (N/mm²): 1.0

FINAL PERFORMANCE (thickness 1.0 mm)

<table>
<thead>
<tr>
<th>Performance characteristics</th>
<th>Test method</th>
<th>Requirements according to EN 1504-2 coating (C) principles PI, MC and IR</th>
<th>Performance figures for Aquaflex Roof</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesion to concrete - after 28 days at +20°C and 50% R.H. (N/mm²):</td>
<td>EN 1542</td>
<td>Flexible systems with no traffic: ≥ 8</td>
<td>1.3</td>
</tr>
<tr>
<td>Thermal compatibility to freeze thaw cycles with de-icing salts, measured as adhesion (N/mm²):</td>
<td>EN 13687-1</td>
<td></td>
<td>≥ 1</td>
</tr>
<tr>
<td>Thermal compatibility to thunder showers measured as adhesion (N/mm²):</td>
<td>EN 13687-2</td>
<td></td>
<td>≥ 1</td>
</tr>
<tr>
<td>Static crack-bridging at +23°C expressed as maximum crack width (mm):</td>
<td>EN 1062-7</td>
<td>class A1 (0.1 mm) to class A5 (2.5 mm)</td>
<td>Class A4</td>
</tr>
<tr>
<td>Static crack-bridging at 0°C expressed as maximum crack width (mm):</td>
<td></td>
<td>class B1 to class B4.2</td>
<td>Class A4</td>
</tr>
<tr>
<td>Dynamic crack-bridging at 0°C expressed as resistance to cracking cycles:</td>
<td></td>
<td></td>
<td>Class B2</td>
</tr>
<tr>
<td>Permeability to water vapour – equivalent air thickness S₀ (m):</td>
<td>EN ISO 7783-1</td>
<td>class I: S₀ &lt; 5 m (permeable to vapour)</td>
<td>S₀ =1.45 Class I</td>
</tr>
<tr>
<td>Impermeability to water, expressed as capillary absorption (kg/m²·h⁰.⁵):</td>
<td>EN 1062-3</td>
<td>&lt; 0.1</td>
<td>0.04</td>
</tr>
<tr>
<td>Permeability to carbon dioxide (CO₂) – diffusion in equivalent air layer thickness S₀CO₂ (m):</td>
<td>EN 1062-6</td>
<td>&gt; 50</td>
<td>S₀CO₂ = 120</td>
</tr>
<tr>
<td>Exposure to artificial weather conditions:</td>
<td>EN 1062-11</td>
<td>After 2000 hours of artificial inclement weather:</td>
<td>No swelling, cracking or flacking. Slight colour variation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– no swelling according to EN ISO 4628-2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>– no cracking according to EN ISO 4628-4</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>– no flacking according to EN ISO 4628-5</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>slight colour variation, loss of brightness and crumbling may be accepted</td>
<td></td>
</tr>
<tr>
<td>Reaction to fire:</td>
<td>EN 13501-1</td>
<td>Euroclass</td>
<td>B-s1-d0</td>
</tr>
</tbody>
</table>
information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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All relevant references for the product are available upon request and from www.mapei.com