

Aquaflex Roof HR

**Fibre-filled liquid membrane
in watery emulsion with
high solar reflectance
and thermal emittance
with a solar reflectance
index (SRI) of 105**



WHERE TO USE

- Protection against UV rays and heat for waterproof systems made from a distilled-bitumen/polymer membrane.
- Protecting and waterproofing concrete surfaces, cementitious screeds, screeds made using special binders (such as **Topcem**, **Topcem Pronto**), ceramics or stone coatings.

TECHNICAL CHARACTERISTICS

Aquaflex Roof HR is a ready-to-use waterproofing product, with high solar reflectance and thermal index (SRI) of 105, white colour, for external applications made from synthetic resins in water dispersion, and when dry forms a continuous, flexible membrane.

Aquaflex Roof HR is resistant to all atmospheric conditions and UV rays, and guarantees long-lasting protection for the substrate.

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

Thanks to its flexibility, **Aquaflex Roof HR** will withstand normal expansion/contraction stresses caused by temperature variations.

Aquaflex Roof HR forms a high reflectance barrier against UV rays, thus lowering the operating

temperature of the entire covering and guaranteeing good energy performance of the stratigraphic section of the covering.

Aquaflex Roof HR lowers the surface temperature of the roof by more than 50% compared with a dark coloured covering. Thanks to its SRI value of 105, **Aquaflex Roof HR** helps qualify for LEED credits by reducing the heat island effect of roofs.

RECOMMENDATIONS

- Do not apply **Aquaflex Roof HR** if the temperature is lower than +5°C or higher than +35°C, or if rain is imminent.
- Do not apply if there is any dew on the substrate.
- Do not apply if the level of relative humidity in the air is higher than 85%.
- Do not apply **Aquaflex Roof HR** on substrates with a residual humidity level of > 2.5% or on substrates with rising damp.
- Do not apply **Aquaflex Roof HR** on weak or dusty substrates.
- Protect one of the two coats from rain for at least 8-12 hours after application under normal temperature and humidity conditions, according to the absorption rate of the substrate.
- Do not apply on new bitumen or asphalt as bleeding of oil or plasticisers may occur.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	paste
Colours:	highly reflective white
Density (kg/m³):	1.35
Dry solids content (%):	63
Brookfield viscosity (mPa·s):	15,000 (# 4, 10)
APPLICATION DATA (at +23°C - 50% R.H.)	
Application temperature range:	from +5°C to +35°C
Waiting time between first and second coat:	approx. 8-12 hours
Set to light foot traffic:	12 hours at +23°C
Ready for use:	3 days
FINAL PERFORMANCES	
Elongation at breakage (DIN 53504) (%):	300
Tensile strength (DIN 53504) (N/mm²):	1.1
SRI (Solar Reflectance Index)* (ASTM E1980):	105
Solar reflectance* (ASTM E903) (%):	83
Thermal emittance* (ASTM C1371) (%):	91

* Value certified by the EELab, Faculty of Mechanical and Civil Engineering, University of Modena and Reggio Emilia (Italy)

- Apply a coat of **Primer for Aquaflex** beforehand on bitumen membranes.

APPLICATION PROCEDURE

Preparation of the substrate

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

Carefully clean the existing bituminous membrane to provide a clean, dry substrate. Apply **Primer for Aquaflex** by brush, with a roller or by *airless* spray. Wait until completely dry (approx. 10-12 hours) before applying **Aquaflex Roof HR**.

Concrete and cement substrates must be sound and dry with no rising damp. Any loose parts must be removed. Any hollows in the surface must be repaired with **Planitop Fast 330** or **Adesilex P4**. Infill the gaps between existing ceramic tiles using **Adesilex P4** before applying **Aquaflex Roof HR**. All wax, water-repellent treatments, etc. must be removed from the surface of ceramic substrates with a suitable detergent and/or by abrading. If the substrate has micro-cracks, insert **Mapetex Sel** between the two layers of **Aquaflex Roof HR**. Before applying the **Aquaflex Roof HR**, pay particular attention to the expansion joints and the fillets between horizontal and vertical surfaces, which must be waterproofed using **Mapeband** or **Mapeband PE120** bonded to the substrate with **Aquaflex Roof HR**. 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. If necessary, mix the contents to perfectly blend the product.

Application of the product

Aquaflex Roof HR must be applied with a long-haired roller, brush, trowel or *airless* spray to form two even coats approximately 0.4 to 0.5 mm thick per coat. Wait until the first coat is completely dry before applying the second coat. The next coat must be applied in a criss cross direction to the previous coat (after approximately 8-12 hours under normal temperature and humidity). The final thickness of **Aquaflex Roof HR** must never be less than 0.8-1 mm. Protect the **Aquaflex Roof HR** membrane from rain until it is completely dry.

Cleaning the tools

Tools must be cleaned with water immediately after use.

CONSUMPTION

- 1.3 kg/m² per mm of thickness on cementitious substrates.
- 0.90 kg/m² per two coats on bituminous substrates.

PACKAGING

20 kg drums.

STORAGE

Aquaflex Roof HR 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 HR is not considered as dangerous according to the current regulation regarding the classification of mixtures. It is however recommended to use gloves, eyes protection and to take the usual precaution taken when handling chemical products. 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 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

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



Aquaflex Roof HR



BUILDING THE FUTURE

2152-10-2012

Any reproduction of texts, photos and illustrations published here is prohibited and subject to prosecution

(GB) A.G. BETA