



AQUASCUD REFLEX



FLEXIBLE LIQUID SYSTEMS



PRODUCT DESCRIPTION

AQUASCUD REFLEX is an elastic, fibre-reinforced waterproofing liquid membrane, formulated on the basis of selected synthetic resins in aqueous dispersion and special additives, AQUASCUD REFLEX is characterised by a high Solar Reflectance Index (SRI) and classified BROOF(t2) for reaction to external fire according to EN 13501-5.

PRODUCT APPLICATION

AQUASCUD REFLEX is suitable for the coating of flat, sloping, curved or complex geometrically shaped roofs, whether new or existing, made of:

- Polymer-modified liquid membranes
- Stabilised bituminous coatings, no longer subject to surface migration of oils and plasticisers
- Galvanised sheets, GRP and fibre cement
- Waterproofing of screeds and cement floors
- Tiles and roof tiles
- Stoneware or klinker tiles
- Gutters and drainage channels in concrete, iron, aluminium, copper and polycarbonate

ADVANTAGES

- Reducing the temperature of the roof, with less heat transfer to the rooms below, improving indoor comfort and reducing energy requirements for cooling
- Optimisation of photovoltaic panel yield due to high solar reflectance and thermal emissivity values, which keep the surface temperature stable

- High resistance to UV radiation and weathering, which ensures greater durability of the coating over time. The system also withstands non-persistent water stagnation
- Light foot traffic, allowing occasional walking for inspections or maintenance without compromising the integrity of the waterproofing layer
- Excellent adhesion to substrates and ability to follow surface deformations thanks to high elasticity, without the need for additional protection
- Ready-to-use, cold application, with quick and easy installation
- Non-toxic and solvent-free product, safe for operators and the environment

PREPARATION AND APPLICATION

The preparation and installation data refer to normal environmental conditions (temperature +23 °C; relative humidity 50%).

Preparing the surfaces

Clean the surfaces thoroughly, removing all traces of dust, dirt, salt deposits, efflorescence and loose parts by brushing or pressure washing.

In the case of old ceramic, marble or similar floors, check complete adhesion to the substrate.

Check the solidity of the substrate and the efficiency of the water outflow points.

On very uneven surfaces, restore the substrate with FLEXOMIX 30 mortar (see relevant data sheet).

In the case of old or dusty surfaces, apply PROFIX 30 primer beforehand (see relevant data sheet).

For substrates that are not completely dry but adequately cured, the surface relative humidity must not exceed 5% (measured using a Storch type electric hygrometer).

If the substrate is partially soaked in water, with relative surface humidity between 5% and 10% (measured using a Storch type electric hygrometer), apply BI MORTAR ULTRA SEAL (see relevant technical data sheet).

In the case of application over existing bituminous membranes, the substrate must be stable, undamaged, dry and free of moisture, with no loose or deteriorated parts.

If the membrane is deteriorated or raised, it must be repaired beforehand by suitable repair work.

It will be necessary to control the slope of the surface to avoid stagnation any dips or hollows must be corrected by appropriate levelling or smoothing to ensure regular rainwater run-off.

In the presence of dirt, dust, oils or surface deposits, surfaces should be cleaned with high pressure and allowed to dry completely before proceeding to the next steps.

Once the above conditions have been satisfied on cured bitumen membrane or if a stronger adhesion is desired, proceed with the application of PROFIX 50 primer (see relevant data sheet).

Preparation of installation details and arrangements (if any)

- **JOINTS** Any deformation joints (expansion and contraction/splitting) and construction joints on the surface must be covered by means of GARVO joint cover strips (see relevant technical data sheet); in case of structural joints, use BI FLEX System (see relevant technical data sheet)

- **CORNERS AND CONNECTIONS** In case of insulation joints, fill all wall/floor corners by means of AQUASCUD JOIN (see relevant technical data sheet) staff bead, placing the rubber-coated part in contact with the surface using AQUASCUD REFLEX sealing material. Alternatively, it is possible to use the AQUASCUD JOIN BT adhesive strip (see relevant technical data sheet) laid on a cured AQUASCUD REFLEX layer. At low-height situations use AQUASCUD JOIN BT or, alternatively, BI MASTIC adhesive mastic (see relevant technical data sheet)

- **DRAINS** Prepare the connections to the drains by using the relative DRAIN MANIFOLD

- **GUTTER** Along the external perimeter, set up the AQUASCUD LINE H.0 draining gutter profile and relative special pieces (see relative data sheet)

Preparation and method of application

Before use, mix AQUASCUD REFLEX by hand to obtain a homogeneous, lump-free mixture, avoiding the use of mechanical mixers.

Then proceed with the application of the first coat by trowel, short-hair roller or brush, distributing it evenly with a minimum thickness of 0.7- 0.8 mm, ensuring continuous and regular coverage over the entire surface.

When the first coat is fully cured, approximately after 12 hours, proceed with the application of the second coat, with a minimum thickness of 0.7 - 0.8 mm, laid crosswise to the previous one, in order to obtain an even distribution of the fibres contained in AQUASCUD REFLEX.

Depending on environmental conditions and the condition of the substrate at the time of application, the first coat may be diluted with water up to a maximum of 10% to improve workability and adhesion to the substrate.

The second coat, on the other hand, must be applied without dilution.

Before application, check that the first coat is perfectly dry; Dust, dirt or deposits accumulated during curing time, if present, must be carefully removed before applying the second coat.

Upon completion of application, protect from rain, dew and mist until the coating is fully cured.

Humidity and low temperatures can prolong drying times.

Strengthening with reinforcement mesh

If necessary, local or continuous reinforcements can be provided on the surface in order to give greater consistency and uniformity to the coating.

In this case, apply a first, more abundant coat of AQUASCUD REFLEX (approx. 1 mm) and insert the XNET mesh (see relevant technical data sheet) into the first, still fresh coat, pressing it down with a metal trowel until it is completely embedded.

Any overlapping of the rolls of XNET should be 10 cm.

In order to obtain complete coverage of the surfaces involved, it is recommended to pre-cut the XNET portions to facilitate installation operations, interrupting them at the intersection of different installation planes, in correspondence with any BI FLEX tapes and GARVO joint cover strips.

Maintenance

If maintenance is necessary, clean the surfaces thoroughly, removing all traces of dirt, deposits, efflorescence and loose parts by brushing or pressure washing.

Subsequently, apply the product following the laying methods indicated in the chapter 'Preparation and application methods', in order to preserve the aesthetic and functional quality of the coating over time.





References available at www.volteco.com

CONSUMPTION AND YIELD

1.6-2 kg/m² depending on the type and porosity of the substrate.

PACKAGING AND STORAGE

AQUASCUD REFLEX is packed in 20 kg pails.

Storage time 24 months.

The product must be stored in a dry place without being exposed to frost and heat (at a temperature between +5°C and +35°C).

WARNINGS - IMPORTANT NOTES

The product is ready to use, mix manually before application, do not use mechanical mixers.

Do not store the product in direct sunlight before application.

Do not expose packages to temperatures below +5 °C in the event of frost, the product loses its characteristics and can no longer be used.

Check (ref. UNI 10329) that the concrete substrate to be treated has a residual moisture content $\leq 5\%$ by weight (ref. screed density $\approx 2000 \text{ kg/m}^3$) for lightweight or special screeds, assess the moisture content according to the type and criteria of the standard to ensure a dry substrate before application.

Ensure the presence of adequate slopes and rainwater collection-disposal systems.

If pressure washing the substrate, wait until it is completely dry before application.

Apply the product at an ambient temperature between +5 °C and +35 °C and when no foggy, rainy or frosty conditions are expected, avoiding extreme cold and heat also while the film is drying.

Application in high humidity, strong sunlight, intense wind or temperatures outside the operating limits may alter curing times and adversely affect the development of aesthetic and performance characteristics.

Application on bituminous membranes should only be done on cured, stabilised, clean and suitably sloping substrates.

Direct application on bituminous membranes may result in alterations to the original colour due to bitumen migration phenomena.

Protect wet product from rain.

In the event of bubbles forming due to moisture in the substrate or insufficient drying time, cut the bubble, remove the

material and restore the area with a new coat on a perfectly clean substrate.

Several coats of the product can be applied, always referring to the instructions in the chapter 'Preparation and method of application' and respecting the recommended quantity per application.

Clean tools with water; if the product is already dried, we recommend removing it using hot water or the most common synthetic thinners.

PHYSICAL AND TECHNICAL SPECIFICATIONS

Specification	Values
Appearance	fluid thixotropic paste
Colour	white
Dry dust free	4 hours
Through dry	24 hours
Working temperature	-20°C +90°C
Application temperature	from +5°C to +35°C
Specific weight	1,4 kg/l
Dry residue	67±4 %
Viscosity Brookfield	32.000±6.000 cP

Initial requirements UNI 11928-1:2023

Feature	Test method	Performance requirements	Declared performance
Reaction to fire	UNI EN 13501-1	Declared Euroclass	Euroclass E
Watertightness (water passage with 60 KPa)	UNI EN 1928	No passage	No passage
Water vapour transmission properties	UNI EN ISO 7783	Class	Class I
Direct tensile adhesion, concrete type MC (0.40)	UNI EN 1542	≥ 0.5 N/mm ²	≥ 1,0 N/mm ²
Impact resistance	UNI EN 6272-1	Class	Class III
Static punching	UNI EN 12730	valore massimo > 50 N	≥ 50 N
Dynamic crack bridging (23 °C)	UNI EN 1062-7	Class B2	Class B4.1
Dynamic crack bridging at low temperatures (-10 °C)	UNI EN 1062-7	Class B1	Class B2
Slipping resistance	UNI EN 13036-4	Class	Class III
Capillary absorption	UNI EN 1062-1	$W \leq 0.1 \text{ Kg/m}^2 \cdot \text{h}^{-0.5}$	$W \leq 0.1 \text{ Kg/m}^2 \cdot \text{h}^{-0.5}$

Durability UNI 11928-1:2023

Feature	Test method	Performance requirements	Declared performance
Heat ageing resistance 7 days at 70±3°C (Watertightness)	point 4.1 of EN 1062-11:2003	No passage	No passage
Acceptance criteria after exposure	UNI EN ISO 4628-2 UNI EN ISO 4628-4 UNI EN ISO 4628-5	No swelling No cracking No spalling	No swelling No cracking No spalling
Frost/thaw Without thawing salts 20 cycles (Adhesion to substrate)	UNI EN 13687-3	≥ 0.5 N/mm ²	≥ 1,0 N/mm ²
Acceptance criteria after exposure	UNI EN ISO 4628-2 UNI EN ISO 4628-4 UNI EN ISO 4628-5	No swelling No cracking No spalling	No swelling No cracking No spalling

Feature	Test method	Performance requirements	Declared performance
UV (400 MJ/m ² , 2460 hours) and Spray (492 hours)	UNI EN ISO 4892-3		
Acceptance criteria after exposure	UNI EN ISO 4628-2 UNI EN ISO 4628-4 UNI EN ISO 4628-5	No swelling No cracking No spalling	No swelling No cracking No spalling
Hazardous substances			See safety data sheets

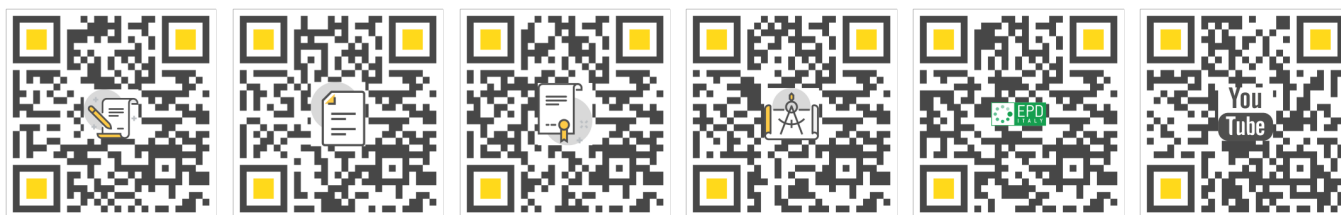
The quoted data are obtained in a laboratory at +20° C and 60% RH.

Feature	Test method	Certified performance (**)
Solar Reflectance Index (SRI)	ASTM E 1980-11	98,7

Feature	Test method	Classification method	Certified performance (**)
Fire resistance classification	UNI CEN/TS 1187:2012 -Test 2	UNI EN 13501-5:2016	BROOF(t2)

WATCH VIDEOS AND INSIGHTS

Safety Data Sheets Declaration of performance Specifications Technical drawings and BIM EPD Declaration YouTube Video



SAFETY

Refer to the related Safety Data Sheet.

COPYRIGHT

© Copyright Volteco S.p.A. - All rights reserved.

Information, images and text found in this document are exclusive property of Volteco S.p.A.

They may change anytime without prior notice.

Updated versions of this and other documentation (specification, brochure, other) are on www.volteco.com.

In case of translation text may contain technical and linguistic inaccuracies.

LEGAL NOTES

Note for buyer/installer:

This document prepared by Volteco S.p.A. is provided as an aid and guideline for the buyer/installer.

This does not take into consideration the details of each single operational context, for which Volteco S.p.A. will not be

held liable.

This does not change and does not extend the obligations of Volteco S.p.A.

It may vary and the installer is therefore required to update his/her information prior to each application by referring to www.volteco.com.

The above clarifications extend to the pre-post-sales technical/commercial information of the commercial network.