

Reflectashield TF 0.81

REFLECTIVE BREATHER MEMBRANE

Reflectashield TF 0.81 is a vapour permeable low emissivity membrane specifically designed to enhance the thermal performance of timber and steel frame structures. Reflectashield TF 0.81 is a non-woven polypropylene film laminate, providing excellent breathability, as well as secondary protection to the building during construction. The product is installed on the external face of the timber frame, foil side face out, similar to that of a traditional breather membrane but with added thermal benefits.

The A. Proctor Group are constantly reviewing their product portfolio to keep up with current legislation. The A. Proctor Group have re-tested Reflectashield TF at the National Physics Laboratory (NPL) resulting in an increase of the claimed thermal performance to 0.81 m²K/W R-value.

The resulting increase in thermal performance does not affect any of the high performance characteristics afforded by the use of Reflectashield TF 0.81.

Reflectashield TF 0.81 complies with the vapour resistance requirements set out by BS 4016, TRADA and the NHBC. The existing legislation requires a breather membrane to have a vapour resistance not greater than 0.60 MNs/g. Reflectashield TF 0.81 has a vapour resistance of 0.41 MNs/g.

The A. Proctor Group can provide a range of solutions, with U-values, down to as low as 0.17W/m²K in standard timber frame walling applications.

Once Reflectashield TF 0.81 is applied to the walls, the primary wall covering should be installed within 3 months.

Reflectashield TF 0.81 must be covered as soon as practically possible on completion of installation. Any damaged areas should be repaired or replaced before completion.

PHYSICAL PROPERTIES

| Property | Test Method | Mean Results | |
|--------------------------------|---------------------------------|---|--|
| Roll Sizes | n/a | 1.45m x 50m 2.7m x 100m 2.9m x 100m | |
| Mass per unit area | EN 1849-2 | 134g/m ² | |
| Reaction to Fire | EN 11925-2 | Class E | |
| Water vapour resistance Sd | EN 1931 | 0.083 m | |
| Water penetration | EN 1928 | Class W2 (Before and After ageing) | |
| Tensile strength | Before ageing: After ageing: | EN 12311-1 | MD 230N MD 190N CD 150N CD 130N |
| Elongation | Before ageing: After ageing: | EN 12311-1 | MD 60% MD 45% CD 80% CD 50% |
| Nail Tear resistance | EN 12310-1 | MD 160N | CD 160N |
| Flexibility at low temperature | EN 1109 | No cracking at minus 40°C | |
| Emissivity | BS EN 15976:2011 | 0.05 | |



KEY BENEFITS

- > R value 0.81 as tested by NPL.
- > Competitively priced.
- > Enhanced foil surface.
- > Unique patented three layer composition.
- > Low vapour resistance - complies with BS4016, TRADA and NHBC requirement.
- > Water resistant.
- > High strength to weight ratio.
- > Improved thermal resistance.
- > 1.45, 2.7 & 2.9 metre wide rolls.
- > UK manufactured ensuring consistent supply.
- > Custom printed material available on request.

Reflectatherm Plus

REFLECTIVE VAPOUR CONTROL LAYER

Reflectatherm Plus is a reflective, high resistance vapour barrier for internal walls, ceilings and floors, specifically designed to enhance the thermal performance when placed on the warm side of the insulation.

The membrane should be installed with the foil side facing the cavity. In ceilings the product is placed between the underside of the rafters and the ceiling lining. Adjacent sheets should be lapped by at least 50mm and sealed with a suitable tape. Minimise penetrations caused by services and seal all joints.

Key Benefits

- R value of 0.78 m²K/W when used with a minimum 19mm service cavity.
- High vapour resistance.
- Improved airtightness.
- Creates service void.
- Creates an unbroken vapour control layer.
- Sd Value of 150m.
- Vapour Resistance 750 MNs/g.
- Help meets the requirements of the Part L in England and Wales, Section 6 in Scotland.



PHYSICAL PROPERTIES

| Property | Test Method | Mean Results |
|--|------------------|---|
| Roll Size - Standard Roll Size - with integrated tape | n/a | 1.5m x 50m, 2.7m x 100m & 3m x 100m 1.5m x 50m |
| Base Membrane | | |
| Mass per unit area | EN 1849-2 | 150g/m ² |
| Reaction to Fire | EN 11925-2 | Class E* |
| Water vapour resistance Sd | EN 1931 | 150m |
| Vapour resistance | EN 1931 | 750 MN/sg |
| Water penetration | EN 1928 | Class W1 (Before and After ageing) |
| Tensile strength | EN 12311-2 | MD 255N/50mm CD 200N/50mm |
| Elongation | EN 12311-1 | MD 59% CD 70% |
| Tear resistance | EN 12310-1 | MD 164N CD 157N |
| Flexibility at low temperature | EN 1109 | No cracking at temperature minus 40°C |
| Emissivity | BS EN 15976:2011 | 0.04 |

*When tested to EN 11925-2 over a rock wool substrate

U Value - Performance Ready Reckoner

| Stud | 89mm | | | | | 95mm | | | | | 115mm | | | | | 140mm | | | | | 145mm | | | | |
|--|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|
| | 0.040 | 0.037 | 0.035 | 0.032 | 0.022* | 0.040 | 0.037 | 0.035 | 0.032 | 0.022* | 0.040 | 0.037 | 0.035 | 0.032 | 0.022* | 0.040 | 0.037 | 0.035 | 0.032 | 0.022* | 0.040 | 0.037 | 0.035 | 0.032 | 0.022* |
| Insulation k Value | 0.040 | 0.037 | 0.035 | 0.032 | 0.022* | 0.040 | 0.037 | 0.035 | 0.032 | 0.022* | 0.040 | 0.037 | 0.035 | 0.032 | 0.022* | 0.040 | 0.037 | 0.035 | 0.032 | 0.022* | 0.040 | 0.037 | 0.035 | 0.032 | 0.022* |
| Reflectashield TF | 0.31 | 0.30 | 0.30 | 0.29 | 0.24 | 0.30 | 0.29 | 0.29 | 0.28 | 0.24 | 0.27 | 0.26 | 0.26 | 0.25 | 0.21 | 0.24 | 0.23 | 0.23 | 0.22 | 0.19 | 0.24 | 0.23 | 0.22 | 0.21 | 0.18 |
| Reflectatherm Plus | 0.33 | 0.32 | 0.31 | 0.30 | 0.25 | 0.32 | 0.31 | 0.30 | 0.29 | 0.24 | 0.28 | 0.27 | 0.27 | 0.23 | 0.21 | 0.25 | 0.24 | 0.23 | 0.22 | 0.19 | 0.24 | 0.23 | 0.23 | 0.22 | 0.18 |
| Reflectashield TF & Reflectatherm Plus | 0.27 | 0.26 | 0.26 | 0.25 | 0.22 | 0.26 | 0.26 | 0.24 | 0.24 | 0.21 | 0.24 | 0.23 | 0.23 | 0.22 | 0.19 | 0.21 | 0.21 | 0.20 | 0.19 | 0.16 | 0.21 | 0.20 | 0.20 | 0.19 | 0.16 |

■ 0.30 or above
 ■ 0.23 - 0.29
 ■ 0.22 or less

* When utilising rigid insulation boards between studs, accommodation for services should be considered. The above calculations are based on fully filling the stud with insulation and the provision of a service cavity.

