BRITANNIA

DATA SHEET

TILECOAT

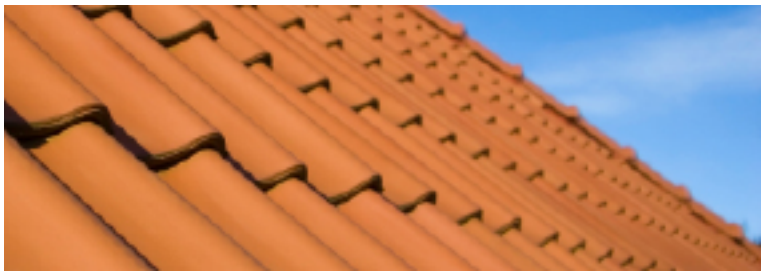
RENOVATION COATING

ECO-FRIENDLY PRODUCT

BRINGS AGED ROOF TILES BACK TO LIFE
REDUCES ENERGY CONSUMPTION AND CARBON EMISSIONS
PROTECTS THE ENVIRONMENT

Contains ceramic spheres developed for use in the space industry. These improve the insulative properties of roof significantly.

To see the results of independent tests carried out by University of Salford, please scroll down this data sheet.



DESCRIPTION

> A high quality water based Acrylic coating.
> Long lasting external decorative and protective finish for concrete and fibre cement roof tiles.
> Excellent durability and colour properties.
> **Contains algicide and fungicide.**

USES

Suitable for use on exterior concrete and fibre cement roof tiles. Excellent adhesion to porous surfaces.

> Can be brush or spray applied.

Clay and sand dressed clay tiles
Because of the nature of clay tiles we cannot always guarantee adhesion of the Tilecoat. We recommend that the Tilecoat Primer (see seperate technical data sheet) is applied prior to the application of the Tilecoat tile renovation coating to maximise the coatings life expectancy.

All clay surfaces must be jet washed and thoroughly dry before the application of the Tilecoat Primer.

Not to be used on painted surfaces or high density/low suction substrates such as glazed brick, glazed tiles, engineering bricks, natural slate.

COLOUR RANGE

> Available in Terracotta, Red, Brown, Green, Dark Grey, Chestnut, Clear and others to special order.

PACK SIZE

> 15 litre plastic containers.

SURFACE FINISH

> Matt.

SPREADING RATE

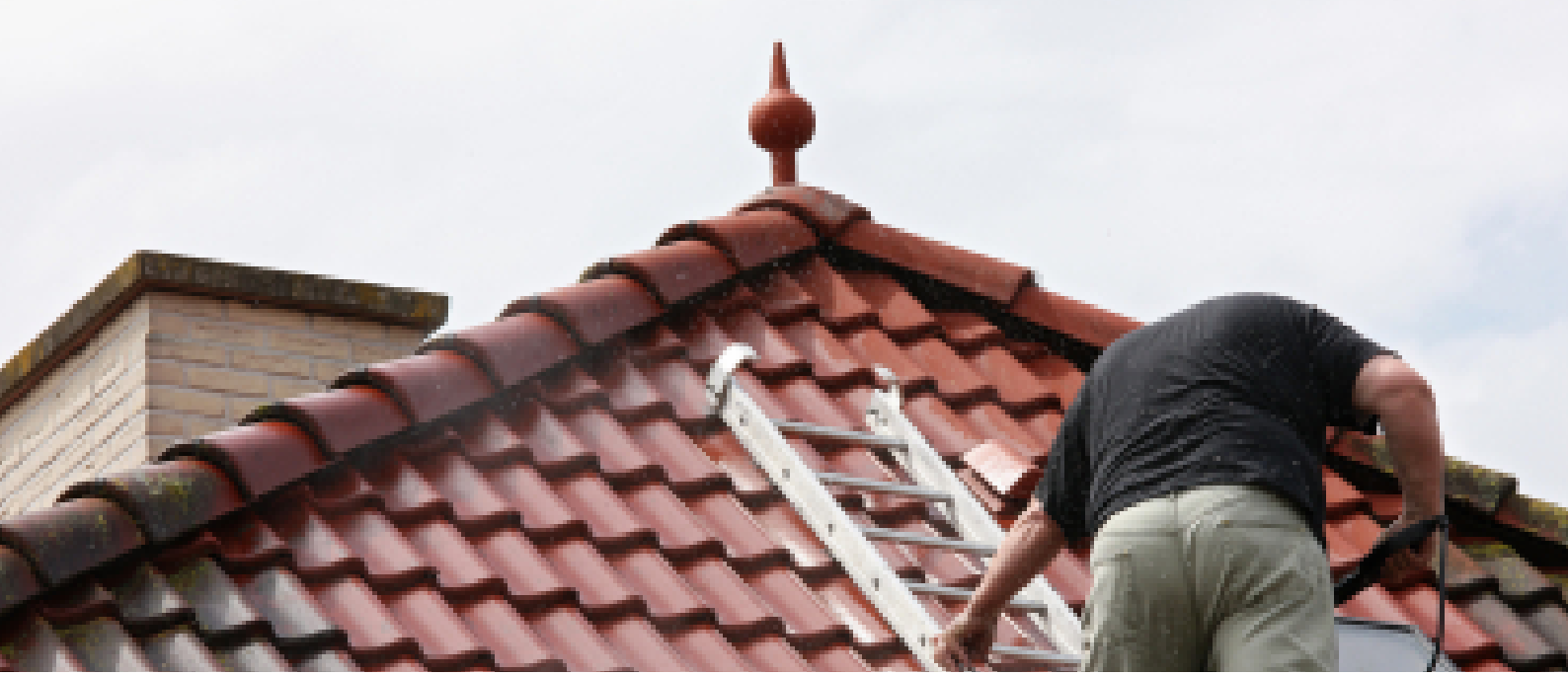
TIlecoat can be sprayed NEAT but may be THINNED with water up to 10% for the first coat and 5% for the final coat.
> The coverage depends on the texture and porosity of the tile surface after power washing and repair.

NEAT
> First, Second coats up to 5 sq metres per litre per coat. (Overall coverage: 2.5 sq metres per litre).

THINNED (THOROUGH STIRRING IS REQUIRED PRIOR TO SPRAYING)
> First coat: 6 - 10 sq metres per litre per coat.
Second coat: 6 - 8 sq metres per litre per coat.
(Overall coverage: 3.5 - 4.0 sq metres per litre).
> **Spray recommendation - can be airless sprayed at an atomising pressure 1500 - 2000 psi with a tip size of 19 thou using a 1/4 inch hose up to 30m maximum length. Consult manufacturer for further details.**

DRYING TIME

> Surface dry in 2 - 4 hours depending on temperature and porosity.
> The second coat may then be applied 4 - 6 hours after the first coat has dried.



SHELF LIFE

> Up to 12 months if stored correctly in an unopened container.
> Store above 5°C.

SURFACE PREPARATION

> The roof area must be thoroughly cleaned, prior to application of the coating in order to remove accumulated dirt, debris, bird faeces, moss, lichen, fungus and all other detritus materials and free from latiance before application.
> The area to be coated must be pressure washed to remove all substrate contaminates. Care must be taken not to damage the roof structure, whilst pressure washing. Replace any damaged tiles prior to coating.

APPLICATION OF FUNGICIDAL WASH

> The fungicidal wash solution is best applied by brush, to allow a thorough substrate penetration.
> The fungicidal wash solution should be applied at a rate of 10-20 square metres per litre.
> **After application the roof should be allowed to dry completely** and then inspected to ensure a uniform substrate coverage and that there is no water trapped in joints between the tiles.

(See Fungicidal Wash Solution product data sheet).

APPLICATION OF TILECOAT PRIMER

All clay surfaces must be jet washed and thoroughly dry before the application of the Tilecoat Primer.
> Clay surfaces should be sound, clean, dry and free from latiance.
> Spreading rate is up to 10-15 square metres per litre depending on the porosity of the surface.
> Allow to dry between 2-4 hours before overcoating with the Topcoat.

(See Tilecoat Primer product data sheet).

APPLICATION OF TILECOAT

TIlecoat can be sprayed NEAT but may be THINNED with water up to 10% for the first coat and 5% for the final coat.

> **All tile coating work should be carried out in dry conditions** and without the forecast of precipitation or frost, within 6 hours of applying the coat.
> No coating should be carried out in times of condensation conditions or when the relative humidity exceeds 90%.
> No coating should be carried out when the substrate temperature is below 5°C or above 35°C.
> The maximum permissible moisture content of the substrate is 21%.
> If possible do not apply the coating when the roof tiles are very hot, in order that premature surface drying and poor substrate wetting does not occur.
> When dry after a minimum of 4-6 hours drying the second coat of material may be applied.

EQUIPMENT AND CLEANING

> Clean all equipment immediately with water after use.

PRECAUTIONS

> Keep out of reach of children.
> In case of contact with eyes wash immediately with plenty of water.
> Remove splashes from skin with soap and water or a recognised hand cleaner.
> Protect from freezing.
> Do not apply paint if there is a risk of heavy rain or frost.
> Do not use near fishponds.

SAFETY

Good working practice should be followed and safety/ walking boards should be utilised where required.

The specification and coverage rates are given in good faith and are based on our experience and knowledge but without liability.

As Britannia Paints Limited has no direct control over the methods employed by the user in applying its products, any warranty either written or implied is given in good faith and can only cover the material itself.

If in doubt regarding any of the above points, please contact our technical services department for advice.

A Material Safety Data Sheet is available on request.

It is the users responsibility to ensure that this data sheet is current prior to using the product.

EXTRACT FROM TEST REPORT

TILECOAT SHOWN TO INCREASE THERMAL RESISTANCE BY 5.3%

TEST REPORT

THERMAL MEASUREMENT LABORATORY
School of Computing, Science & Engineering
Newton Building, The University of Salford
Salford, M5 4WT, England.

Tel: 0161 295 5172 or 3114
Fax: 0161 295 4456
E-mail: a.simpson@salford.ac.uk

UKAS Testing
No. 1660
CPD Notified Laboratory
No. 1145

Date of Issue: 29 September, 2009
Your Order No.: DIJ 7809
Internal Reference No.: TT09/154

Signatory: **Dr.A.Simpson**

Thermal Resistance of Coated Tile D and Air Surface Resistance Layer

Client Britannia Paints Ltd, Units 7/8 King Street Trading Estate, Middlewich, Cheshire, CW10 9LF

1. Sample 12 mm nominal thickness coated tile D (supplied by client) + 25 mm air surface resistance layer.

Product Standard applicable to tested specimens - N/A

2. Method Single specimen heat flow meter method. Heat flux direction – vertically upwards. Apperatus HFM1. The apparatus was calibrated against UKAS accredited EN 12667 guarded hot plate apparatus. Edge heat losses reduced by 125 mm edge insulation

3. Thermal Resistance of coated tile and air surface resistance

Air Temperature °C	Warm Tile Surface Temperature °C	Cold Tile Surface Temperature °C	Thermal Resistance Tile/Surface m^2K/W
4.9	13.1	9.9	0.147 ± 4.1%

A. Simpson

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4. Test Details

		Value For Specimen As-Tested
Initial specimen thickness	m	0.01233
Relative thickness change during test	%	0.00
Dimensions	m	0.302 x 0.303
Relative volume change during test	%	0.00
Mass before test	g	1480.1
Mass after test	g	1481.7
Relative mass change during test	%	0.08
Relative mass change during drying	%	N/A
Relative mass change during conditioning	%	-0.84
Density of conditioned plasterboard as tested	kg/m^3	1312
Temperature of Air	°C	4.9
Temperature of tile surface (warm)	°C	13.1
Temperature of tile surface (cold)	°C	9.9
Temperature drop across tile/air surface	K	8.20
Temperature drop across tile	K	3.14
Temperature drop across air surface layer	K	5.06
Density of heat flow rate	W/m^2	55.8
Thermal Resistance of tile & air surface	m^2K/W	0.147
Thermal Resistance of tile	m^2K/W	0.056
Thermal Resistance of air surface layer	m^2K/W	0.091
Date of completion of the test		28 September, 2009
Duration of test	hrs	120
Ambient temperature surrounding the apparatus during the test	°C	22 - 23

11. Increase in Thermal Resistance

The increase in thermal resistance of coated tile D, over that for uncoated tile D (Report TT 09/147, R= 0.139 m^2K/W) is 5.3%. The thickness of the coating was approximately 0.24 mm on the 12 mm nominal thickness tile.

Cert: 8516

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