TUFF WATERPROOFING LIMITED

HOME OF



AND

TuffTechpro











info@tuffwaterproofing.co.uk

TuffStuff® GRP and TuffTechPRO® are brand names of Tuff Waterproofing Ltd











CAPTAIN TUFFY SAYS

see and hear what I have





TUFF WATERPROOFING LTD

PRODUCT GUIDE

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INTRODUCTION TO TuffStuff®

Seamless performance for maximum protection

The TuffStuff® GRP flat roof waterproofing system utilises the very latest polyester resin technology to provide a tough and permanent solution to the age-old problem of leaking flat roofs.

Developed through 25 years' experience in the manufacture and installation of GRP flat roofing, TuffStuff® is fully integrated - all components are designed to work with each other to produce a robust, heavy-duty membrane for faultless waterproof performance. With no seams or joints which are prone to leakage in other roof systems, TuffStuff®'s seamless membrane is formed in situ and fully bonded to the roof deck.

Quality that lasts

Customers can confidently expect a lifetime of leak-free, maintenance-free protection from their TuffStuff® installation. The membrane's extremely hard wearing structure installed onto a new timber decking tolerates light foot traffic and resists attack from ultra violet light.

To demonstrate TuffStuff®'s durability every Contractor receives a 25-year Product Warranty and naturally they will take responsibility for their own workmanship.





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Versatile and adaptable

TuffStuff® is not only ideal for flat-roofing; it is highly versatile and can be used for almost any application of any size or complexity. Sloping roofs, green roofs and balconies can all be easily accommodated, as can pools, ponds or water tanks.

TuffStuff® can adapt to existing or new features such as parapet walls, skylights, vent pipes, sunpipes and balustrade. Support structures such as solar panels or air conditioning units can also be integrated either during or after installation.

TuffStuff® is available as standard in dark grey but a range of different colours are available on request. A slip-resistant finish can also be specified.







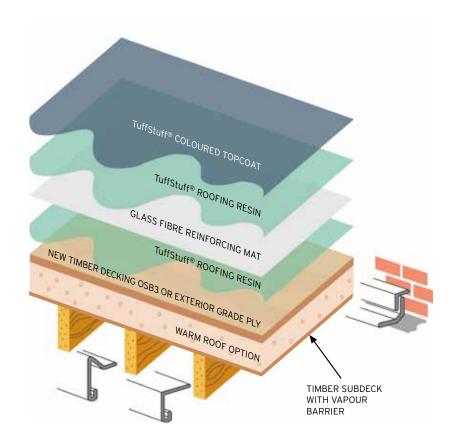








- Tough but attractive appearance
- High security too tough to be cut by a knife
- High safety UK Building Regs.
 Compliant
 Full Fire Certificate
- TuffStuff® the fit and forget solution
- Choose TuffStuff® choose peace of mind



 $\label{thm:continuity} {\it TuffStuff} \begin{tabular}{l} \tt SCP is a brand name of Tuff Waterproofing Ltd \\ \tt an ISO 9001 accredited company \\ \end{tabular}$







BEFORE











COLOUR RANGE















BROWNSTONE



PAVILLION GREEN





SIGNAL RED











MOONSTONE (non slip)

"Now available in a choice of attractive colours and textures to harmonise with any style of building and meet every aesthetic requirement."



Due to the limitations of the printing process actual colours may vary slightly from those shown.



To demonstrate TuffStuff®'s durability every Contractor receives a 25-year Product Warranty and naturally he will take responsibility for his own workmanship.











MATERIALS CALCULATOR

PRIMARY MATERIALS						
ROOF AREA (m²)	BASE COAT CANS	TOP COAT CANS	BANDAGE ROLLS	450gm GLASS-MAT (kg)	CATALYST (1kg/0.9 Litre)	DECKING BOARDS 2.4m x 0.6m x 18mm 1.4m² per board
TuffStuff® CODES	TSP01	TSP02/2A	TSA57	TSP03/3A/3B	TSA38-43	
5	1 x 15kg	1 x 5kg	1	1 x 5.5kg	1	5
10	1 x 15kg	1 x 5kg	1	1 x 5.5kg	1	8
15	2 x 15kg	2 x 5kg	1	2 x 5.5kg	2	12
20	2 x 15kg	2 x 5kg	1	2 x 5.5kg	2	15
25	3 x 15kg	1 x 15kg	1	1 x 16.5kg	2	19
30	3 x 15kg	1 x 15kg 1 x 5kg	1	1 x 16.5kg	3	23
35	4 x 15kg	1 x 15kg 1 x 5kg	1	1 x 16.5kg 1 x 5.5kg	3	26
40	4 x 15kg	1 x 15kg 2 x 5kg	1	1 x 16.5kg 1 x 5.5kg	3	30
50	5 x 15kg	2 x 15kg	2	1 x 16.5kg 2 x 5.5kg	4	38
60	6 x 15kg	2 x 15kg 1 x 5kg	2	1 x 33kg	5	46
70	7 x 15kg	2 x 15kg 2 x 5kg	2	1 x 33k 1 x 5.5kg	5	54
80	8 x 15kg	3 x 15kg	2	1 x 33kg 1 x 5.5kg	6	61
90	9 x 15kg	3 x 15kg 1 x 5kg	2	1 x 33kg 2 x 5.5kg	7	69
100	10 x 15kg	3 x 15kg 2 x 5kg	2	1 x 33kg 1 x 16.5kg	7	77

	ADDITIONAL MATERIALS											
ROOF SIZE (m²)	3" ROLLERS	3" ROLLER SLEEVES	7" ROLLERS	7" ROLLER SLEEVES	SMALL PADDLE ROLLERS	LARGE PADDLE ROLLERS	SMALL BRUSHES	LARGE BRUSHES	ACETONE (LITRES)	SMALL BUCKETS	LARGE BUCKETS	TRIM ADHESIVE
TuffStuff® CODES	TSA51	TSA55	TSA52	TSA56	TSA53	TSA54	TSA47/8	TSA49/50	TSA45/6	TSA62	TSA63	TSA58
5	1	2	1	2	1	1	1	2	5	1	2	1
10	1	2	2	3	1	1	1	2	5	1	2	1
20	1	3	2	4	1	1	2	2	5	1	2	2
40	1	3	2	6	1	1	2	4	5	1	3	3
60	2	4	3	8	1	1	4	6	5	2	3	4
80	2	4	3	10	1	1	4	8	10	2	4	6
100	3	5	3	12	1	2	5	10	10	2	4	7

Preformed GRP edge trims are not included in this table. These are available in 3m lengths and have to be measured separately.

*If using the thicker heavy duty system (600gm mat) for example on balconies, walkways or critical applications you will need to use 33% more Base Coat due to the thicker heavier mat or 2 x 450gsm mat (double laminated) for green roofs and heavily trafficked areas.

TuffStuff® GRP is a brand name of Tuff Waterproofing Ltd



BASECOAT U	SAGE CHART
AREA (m²)	BASECOAT RESIN (litres)
1m ²	1.2
2m²	2.4
3m ²	3.6
4m ²	4.8
5m²	6.0
6m²	7.2
7m ²	8.4
8m²	9.6
9m²	10.8
10m ²	12.0
15m²	18.0
20m²	24.0
25m ²	30.0
30m ²	36.0
40m²	48.0
50m ²	60.0
60m²	72.0
70m²	84.0

TOPCOAT USAGE CHART				
AREA (m²)	TOPCOAT RESIN (litres)			
1m²	0.5			
2m²	1.0			
3m²	1.5			
4m ²	2.0			
5m ²	2.5			
6m²	3.0			
7m²	3.5			
8m²	4.0			
9m²	4.5			
10m ²	5.0			
15m²	7.5			
20m ²	10.0			
25m ²	12.5			
30m ²	15.0			
40m²	20.0			
50m ²	25.0			
60m²	30.0			
70m ²	35.0			

RESIN USAGE

& CATALYST CHARTS

How much catalyst do I need to add to Basecoat and Top Coat resins?*

TEMPERATURE	25-30°c	14-24°c	4-13°c	IN COLD CONDITIONS STORE
CATALYST GRADE	EXTRA SLOW SUMMER	SUMMER	WINTER	THE RESINS IN A WARM ENVIRONMENT
TEMPERATURE	20-30°c	13-19°c	9-12°c	4-8°c
PERCENTAGE *CATALYST	1% CATALYST	2% CATALYST	3% CATALYST	4% CATALYST
CATALYST REQU	IRED (Millilitres)	- always mix well		
QUANTITY OF RESIN	WARMER	CATALYST	REQUIRED	COOLER
(Litres)	1% MIN	2%	3%	4% MAX
1	10ml	20ml	30ml	40ml
2	20ml	40ml	60ml	80ml
3	30ml	60ml	90ml	120ml
4	40ml	80ml	120ml	160ml
5	50ml	100ml	150ml	200ml
6	60ml	120ml	180ml	240ml
7	70ml	140ml	210ml	280ml
8	80ml	160ml	240ml	320ml
9	90ml	180ml	270ml	360ml
10	100ml	200ml	300ml	400ml

Cold conditions - contact us with regard to COLD PLUS

*The figures shown are a guide only and if in doubt as to the actual amounts of catalyst to be added for a given situation then prepare a small trial mix to ascertain the actual curing rate.







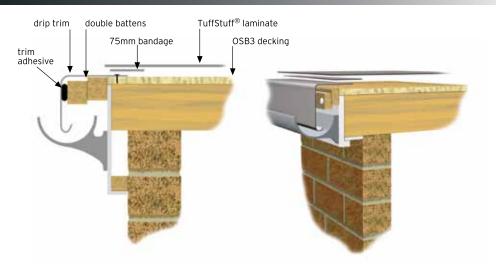


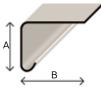




TRIMS GUIDE

DRIP EDGE TRIMS

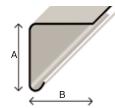




SMALL DRIP TRIM A170

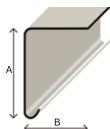
Dim 'A' 65mm Dim 'B' 90mm

Code: TST05



STANDARD DRIP TRIM A200

Dim 'A' 90mm Dim 'B' 90mm Code: TST06



DEEP DRIP TRIM A250

Dim 'A' 145mm Dim 'B' 90mm

Code: TST07

DESCRIPTION

- Trim fitted to lower edge of roof to guide rainwater into gutter
- · All 3 metres long
- · 3 sizes small, standard and deep

All dimensions are approximate





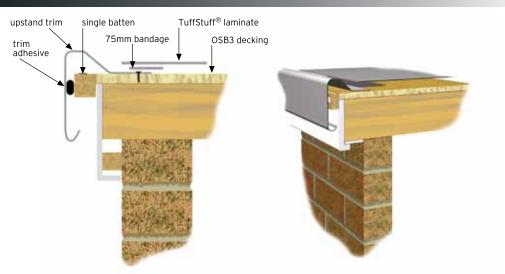


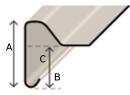




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UPSTAND (RAISED EDGE) TRIMS

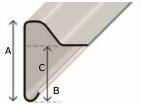




STANDARD UPSTAND TRIM (RAISED EDGE) B230

Dim 'A' 105mm Dim 'B' 110mm Dim 'C' 75mm

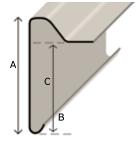
Code: TST08



DEEP UPSTAND TRIM (RAISED EDGE) B260

Dim 'A' 125mm Dim 'B' 110mm Dim 'C' 95mm

Code: TST09



EXTRA DEEP UPSTAND TRIM (RAISED EDGE) B300

Dim 'A' 175mm Dim 'B' 110mm Dim 'C' 145mm Code: TST10

DESCRIPTION

- · Trims fitted on perimeter of roof (non draining edges) to overlap fascia
- · All 3 metres long

All dimensions are approximate

· 3 sizes - standard, deep and extra deep







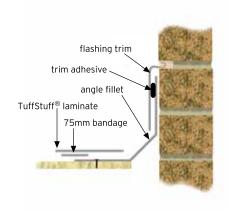


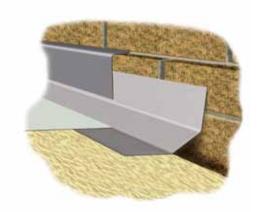


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TRIMS GUIDE

ANGLE FILLET TRIMS

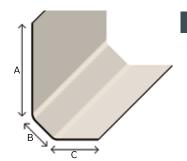




STANDARD ANGLE FILLET TRIM (WALL FILLET) D260

Dim 'A' 115mm Dim 'B' 60mm Dim 'C' 75mm

Code: TST17



LONG LEG ANGLE FILLET TRIM (WALL FILLET) D300

Dim 'A' 185mm Dim 'B' 60mm Dim 'C' 80mm

Code: TST18

DESCRIPTION

- · To be used at junction of roof and wall, in conjunction with codes: TST11 to TST14/ TST15 & 16 Flashing Trims
- · All 3 metres long

All dimensions are approximate

· 2 variants - standard and long leg





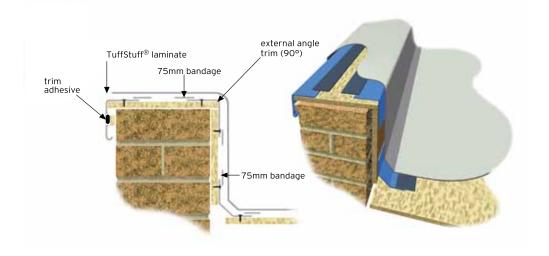






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EXTERNAL ANGLE TRIM (90°)



В

INTERNAL ANGLE TRIM AT195INT

Dim 'A' 100mm Dim 'B' 70mm

Inside face accepts laminate

Code: TST25

Code: TST26



Dim 'B' 70mm

Outside face accepts laminate

- Used to trim a right angled corner
- · 3 metres long

All dimensions are approximate

DESCRIPTION

В





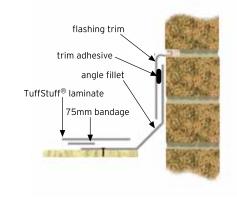


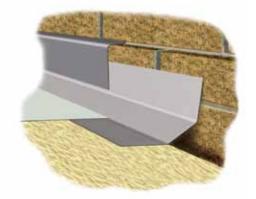


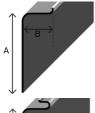


TRIMS GUIDE

SIMULATED LEAD FLASHING TRIM







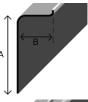
STANDARD SIMULATED LEAD FLASHING C100

Dim 'A' 100mm Code: TST11 Dim 'B' 30mm



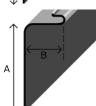
SIMULATED LEAD FLASHING & MOISTURE TRAP C100MT

Dim 'A' 100mm Code: TST12 Dim 'B' 35mm

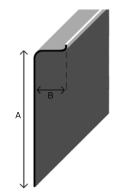


SIMULATED LEAD FLASHING + EXTRA PENETRATION C100L

Dim 'A' 100mm Code: TST13 Dim 'B' 50mm

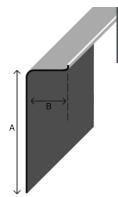


Dim 'A' 100mm Code: TST14 Dim 'B' 55mm



LONG LEG SIMULATED LEAD FLASHING C150

Dim 'A' 150mm Code: TST15 Dim 'B' 40mm



Dim 'A' 150mm Code: TST16 Dim 'B' 50mm

DESCRIPTION

- Trim fitted into wall to seal roof at junction of roof and wall, usually fitted over TST17/18 Angle Fillet
- · All 3 metres long

All dimensions are approximate

6 variants - C100 most commonly used





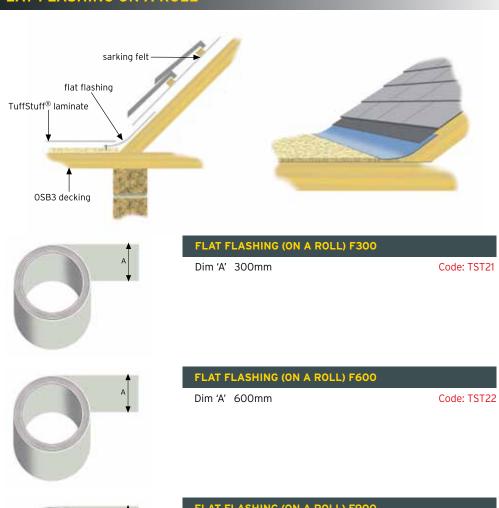








FLAT FLASHING ON A ROLL





FLAT FLASHING (ON A ROLL) F900

Dim 'A' 900mm Code: TST23

- **DESCRIPTION**
- · To be used where a flat roof meets a pitched roof
- · All 20 metres long
- All dimensions are approximate
- 3 widths 300mm, 600mm and 900mm



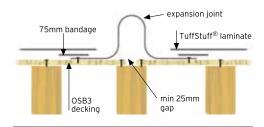




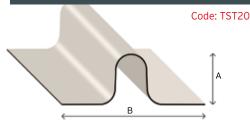


TRIMS GUIDE

EXPANSION JOINT (RAISED RIDGE ROLL) + END CLOSURE



EXPANSION JOINT/RIDGE ROLL E280

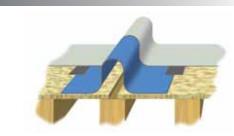


Dim 'A' 65mm Dim 'B' 185mm

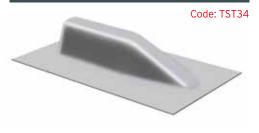
DESCRIPTION

All dimensions are approximate

All dimensions are approximate

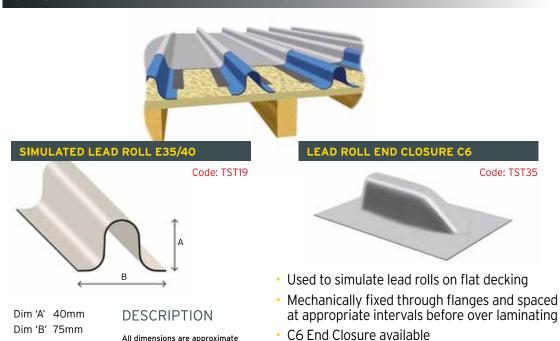


EXPANSION JOINT CLOSURE C5



- Used to form an expansion joint on roof over 50 Sqm
- Also used on a ridge connecting two sloping roofs
- · All 3 metres long

SIMULATED LEAD ROLL



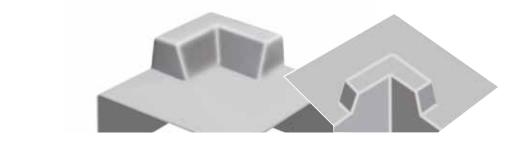






PRE-MOULDED CORNER RANGE

• Many corners can be moulded using reinforcing mat and resin, these moulded items provide a quick, pre-made alternative





Code: TST27



ANGLE FILLET TO ANGLE FILLET EXTERNAL CORNER **C3EXT**

Code: TST32



ANGLE FILLET TO TRIM C2L Left handed

Code: TST29



Code: TST33



ANGLE FILLET TO TRIM

C2R Right handed

Code: TST30



SIMULATED LEAD FLASHING INTERNAL CORNER C7INT

Code: TST36



ANGLE FILLET TO ANGLE FILLET INTERNAL CORNER C3INT

Code: TST31



SIMULATED LEAD FLASHING EXTERNAL CORNER C7EXT

Code: TST37









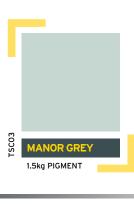
PRODUCTS





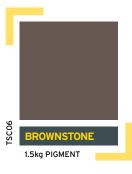






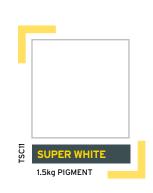


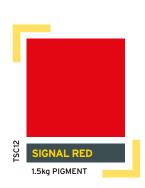




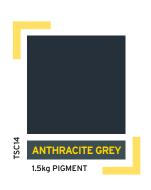




















f y in



5.5kg - 450gsm 10sqm COVERAGE

33kg - 450gsm 65sqm COVERAGE































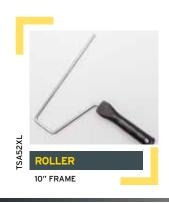
























































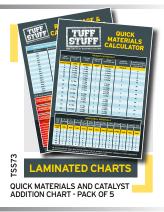






























RE-ORDER FORM

STOCK CODE	PRODUCT DESCRIPTION	NO OF ITEMS REQUIRED
TSP01	Base Coat (15kg)	
TSP01A	Base Coat (5kg)	
TSP01CP	Base Coat Resin 15kg - Cold Plus	
TSP02	Top Coat - Grey Slate (5kg) (RAL7011 - Iron Grey) Fire Rated	
TSP02A	Top Coat - Grey Slate (15kg) (RAL7011 - Iron Grey) Fire Rated	
TSP02CP	Top Coat Resin 15kg - Cold Plus	
TSP03	450gsm Reinforcing Mat 33kg - 65sq m coverage	
TSP03A	450gsm Reinforcing Mat 16.5kg - 33sq m coverage	
ТЅРОЗВ	450gsm Reinforcing Mat 5.5kg - 10sq m coverage	
TSP04	600gsm Reinforcing Mat 33kg - 55sq m coverage	
TSP04A	600gsm Reinforcing Mat 16.5kg - 27sq m coverage	
TTP01	TuffTechPRO® - Polyurethane Liquid Waterproofing Membrane 15kg	
TTP02	TuffTechPRO® - 225g/m² Chopped Strand Mat 60m approx. x 1m wide	
TTP03	TuffTechPRO® - Cap Layer 5 Litres	
TTP04	TuffTechPRO® - 225gsm Chopped Strand Mat 30m approx. x 1m wide	
TST05	A170 Drip Edge Trim Small (3m) (sold in 10's)	
TST06	A200 Drip Edge Trim Standard (3m) (sold in 10's)	
TST07	A250 Drip Edge Trim Deep (3m) (sold in 10's)	
TST08	B230 Upstand Trim (3m) (sold in 10's)	
TST09	B260 Upstand Trim Deep (3m) (sold in 10's)	
TST10	B300 Upstand Trim Extra Deep (3m) (sold in 5's)	
TST11	C100 Simulated Lead Flashing (3m) (sold in 10's)	
TST12	C100 MT Simulated Lead Flashing with Moisture Trap (3m) (sold in 5's)	
TST13	C100 L Simulated Lead Flashing with increased penetration (3m) (sold in 5's)	
TST14	C100 LMT Simulated Lead Flashing with increased penetration and moisture trap (3m) (sold in 5's)	
TST15	C150 Simulated Lead Flashing Long Leg (3m) (sold in 10's)	
TST16	C150L Simulated Lead Flashing Long Leg with increased penetration (3m) (sold in 5's)	
TST17 TST18	D260 Angle Fillet (3m) (sold in 10's) D300 Angle Fillet with long leg (3m) (sold in 10's)	
TST19	E35/40 Simulated Lead Roll (3m) (sold in 5's)	
TST20	E280 Raised Ridge Roll/Expansion Joint (3m) (sold in 5's)	
TST21	F300 Flat Flashing (20m) - approx. 300mm wide	
TST22	F600 Flat Flashing (20m) - approx. 600mm wide	
TST23	F900 Flat Flashing (20m) - approx. 900mm wide	
TST25	AT195 Int Internal Angle Trim (3m) (sold in 5's)	
TST26	AT195 Ext External Angle Trim (3m) (sold in 5's)	
TST27	C1 Universal External Corner	
TST29	C2L Fillet to trim left hand	
тѕтзо	C2R Fillet to trim right hand	
TST31	C3 Int Internal Angle Fillet Corner	
TST32	C3 Ext External Angle Fillet Corner	
тѕтзз	C4 Universal External Corner/Internal Corner	
TST34	C5 Roof Ridge/Expansion Joint Closure	
TST35	C6 Simulated Lead Roll Closure	
TST36	C7 Int Simulated Lead Flashing Corner (Internal)	
TST37	C7 Ext Simulated Lead Flashing Corner (External)	
TST38	10sq m Roof Pack	OVERLEAF >

STOCK	PRODUCT	NO OF ITEMS
CODE	DESCRIPTION	REQUIRED
TSA38	Catalyst/Hardener (Extra Slow Summer Grade) 5kg/4.5 Litre	
TSA39	Catalyst/Hardener (Extra Slow Summer Grade) 1kg/0.9 Litre	
TSA40	Catalyst/Hardener (Summer Grade) 5kg/4.5 Litre	
TSA41	Catalyst/Hardener (Summer Grade) 1kg/0.9 Litre	
TSA42	Catalyst/Hardener (Winter Grade) 5kg/4.5 Litre	
TSA43	Catalyst/Hardener (Winter Grade) 1kg/0.9 Litre	
TSA44	Catalyst Safety Dispenser	
TSA45	Acetone - Tool Cleaner (10 Litre)	
TSA46	Acetone - Tool Cleaner (5 Litre)	
TSA47	1" Laminating Brush (in boxes of 12)	
TSA48	2" Laminating Brush (in boxes of 12)	
TSA49	3" Laminating Brush (in boxes of 12)	
TSA50	4" Laminating Brush (in boxes of 12)	
TSA51	3" Roller complete	
TSA52 TSA52XL	7" Roller complete 10" Roller Frame	
TSA52XL		
TSA53	3" Paddle Roller - Extra wide diameter for reduced resin overspray 3" Bubble Buster Paddle Roller	
TSA53BX	6" Paddle Roller - Extra wide diameter for reduced resin overspray	
TSA54BX	6" Bubble Buster Paddle Roller	
TSA54A	9" Paddle Roller - Extra wide diameter for reduced resin overspray	
TSA54ABX	9" Bubble Buster Paddle Roller	
TSA55	3" Sleeves - in packs of 10	
TSA56	7" Sleeves - in packs of 10	
TSA56XL	10" Sleeves - in packs of 10	
TSA57	75mm wide CSM Bandage approx. 65m long	
TSA58	Grey Polyurethane Trim Adhesive (box of 12)	
TSA59	100mm wide Tissue Roll approx. 300m long	
TSA60	TuffSeal - 5kg Emergency Repair Coating - Grey	
TSA61	G4 Polyurethane Primer 5kg	
TSA61A	G4 Polyurethane Primer 1kg	
TSA62	Mixing Bucket 5 Litre	
TSA63	Mixing Bucket 10 Litre	
TSA64	Graduated Mixing Bucket 14 Litre	
TSA64A	TuffStuff® Printed Bucket with Lid 15 Litre	
TSA65	Hand Cleaner 5 Litre	
TSA66	Hand Cleaner 1 Litre	
TSA67	Disposable Nitrile Blue Powder Free Gloves (box of 100)	
TSA68	Starter Pack - (Initial supply of application tools, catalyst dispenser etc. plus Installation and Trim Guides)	
TSS69	A5 Display Stand Flyers	
TSS70	A5 Colour Product Brochure (pack of 50)	
TSS71	TuffStuff® Installation Guide (sold singly)	
TSS72	Trim Guides (pack of 10)	
TSS73	Laminated Quick Materials and Catalyst Addition Chart (pack of 5)	
TSS74	6' Extension Pole	
TSS75	Wash Wipes	
TSS76	Van Sticker	
TSS77	Wooden Thermometer	
TSC01	Top Coat Clear 15kg - requires the addition of 1.5kg Pigment (see below)	
TSC02	Pigment - Monor Croy 15 kg	
TSC04	Pigment - Manor Grey 1.5 kg Pigment - Sienna 1.5kg	
TSC04	Pigment - Urban Green 1.5kg	
TSC06	Pigment - Brownstone 1.5kg	
TSC07	Pigment - Pavilion Green 1.5kg	
TSC08	Moonstone Slate Granules (Textured finish) 25kg - coverage approximately 10sq m	
TSC11	Pigment - Super White 1.5kg	
TSC12	Pigment - Signal Red 1.5kg	
TSC13	Pigment - Sapphire Blue 1.5kg	
TSC14	Pigment - Anthracite Grey 1.5kg	













25 YEAR

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CERTIFICATE

This certificate confirms that the TuffStuff® GRP system comprising TuffStuff® resins, reinforcement and profile trims, when used as a fully integrated system are warranted as watertight for a period of 25 years from the date of manufacture (or installation date if within 6 months of the manufacture date) when installed in accordance with the methodology set down in the TuffStuff® Installation Guide©.

This warranty is expressly given to all TuffStuff® stockists and contractors purchasing directly from such stockists.

In the unlikely event of water ingress caused by a failure in the laminate due to a manufacturing defect in the TuffStuff® resins then sufficient TuffStuff® resins will be supplied, free of charge to your contractor, to make watertight that area of the roof which has failed.



TuffStuff GRP is a brand name of Tuff Waterproofing Ltd



CONDITIONS

- 1. The limit of all liability is the replacement cost of the defective TuffStuff® materials.
- 2. For a valid claim to be considered the contractor must keep records of all batch numbers affixed to all TuffStuff® resins together with purchase receipts in respect of these products. This information is required at the time of any claim to ensure that only genuine TuffStuff® products have been used throughout the installation.
- 3. This warranty may not be transferred to third parties.

Exceptions

- 1. Damage caused by any peril capable of being insured under a policy of insurance whether or not such policy is effective
- 2. Damage caused by excessive foot traffic. TuffStuff® is designed for light foot traffic only such as occasional access or for
- 3. Excluding cosmetic damage imperfections and/or flaws which have not caused water ingress to the area below.



LABC



FS 622967

EMS 641663







CERT NO:

workmanship quarantee

INSTALLER COMPANY NAME:	
INSTALLER ADDRESS:	
PROVIDED BY:	
TEL NO:	
CERTIFICATE HOLDER NAME & ADDRESS:	LOCATION OF INSTALLATION:
TEL NO.	TEL NO:
TEL NO:	mie
TYPE OF ROOF:	DANCE ONLY
BRIEF DESCRIPTION OF INSTALLATION:	JANO-
INSTALLATION DATE:	INSTALLATION VALUE (ex VAT): £
	CTILL ONE CO.
BATCH NO. BASECOAT:	SE STURE ON SCOMPLIANS COMPLIANS COM
BATCH NO. TOPCOAT:	The second secon

THIS IS A GUARANTEE OF WORKMANSHIP ISSUED BY THE INSTALLER (AS DETAILED ABOVE). THIS IS NOT A GUARANTEE FROM THE MANUFACTURERS OF THE PRODUCT. THE MANUFACTURERS CANNOT BE HELD RESPONSIBLE FOR INCORRECTLY INSTALLED MATERIALS OR ANY SUBSEQUENT LOSSES ARISING THEREFROM.

I (we), The Installer, (The Installer is the company listed in the box above) guarantee(s) this GRP Flat Roof Installation is installed to the standard, specified by the manufacturer and will remain watertight for a period of not less than twenty five years from the installation date.

The Installer guarantees that if within a twenty five year period this installation does not remain watertight by reason of fault in preparation, installation or fixing procedure The Installer undertakes to repair, free of charge to the customer, that section of the roof in question.











FS 622967

EMS 641663

atorkmanship quarantee LIABILITY AND CONDITIONS

- a: The customer takes all reasonable measures to maintain the roof in a serviceable condition.
- b: The customer must advise The Installer in writing of any leaks arising in the roof within fourteen days of discovery. In the event of a claim being invalid (the roof is not the cause of the leak or there is no leak) the customer agrees to pay The Installer a reasonable call out charge for a survey and provision of a report in the sum of a standard hourly charge as would be expected depending on distance and time required. This is to be determined by The Installer.
- c: The Installers and Employees of The Installer must be given free access to the roof during normal business hours in order to inspect or repair the roof.
- d: This Guarantee shall be in respect of the service life of the installation overleaf in relation to the effects of normal weather conditions. It shall not apply if damaged by any other means such as subsidence, vandalism or tampering of any kind or excessive foot traffic over areas not previously stated by the client to be used for this purpose.
- e: This guarantee does not cover installations that have been altered, changed or tampered with in any way. The Installer shall not be liable for:
 - i: the cost of any routine maintenance, overhaul, modifications, loss or damage arising therefrom
 - ii: any damage or defect caused by any peril capable of being insured under a commercial property, household or similar policy of insurance (whether or not such a policy is effective or in force at the time) or for which compensation is provided by legislation
 - iii: any loss or consequential loss of any nature
 - iv: any damage caused by war risks, sonic booms, terrorism or nuclear radiation as provided by the insurers standard exclusion clauses
 - v: any damage or defect caused by storm or deterioration due to neglect in maintenance





bsi. ISO 14001 Environmental Management

FS 622967

EMS 641663

TuffStuff® GRP is a brand name of Tuff Waterproofing Ltd

www.tuffstuff.co.uk







CERTIFICATION

Certificate No: EW816

This certificate is valid for Building Regulations & associated technical guidance in force on the date of registration for the regulations in the countries indicated.

Tuff Waterproofing Ltd - TuffStuff® GRP Flat Roof System

DESCRIPTION OF PRODUCT

This is an assessment of TuffStuff® GRP Flat Roof System, a wet laid single ply GRP laminate made up of two layers of base coat resin sandwiching a layer glass fibre reinforcing mat. It is applied to a good quality new OSB3 or WBP plywood deck (18/25mm). Profiled GRP edge trims are applied to the roof edges and abutments and the roof is finished with a coat of coloured top coat resin. Can be used on balconies and walkways.

A 25 year product warranty is offered to TuffStuff® stockists and contractors, subject to terms and conditions.

Individual and group training sessions are available to installers. Installation Manuals and DVDs are available from all TuffStuff® Stockists.

Technical support available 24/7 to all installers.













KEY FACTORS ASSESSED

- · Safety in case of Fire
- Health Hygiene and Environmental
- · Safety in Use
- Energy Economy and heat retention
- Durability serviceability and identification

VALIDITY

This certificate was first issued on 13th January 2017 and is valid until 13th January 2021 Issue Dated 3rd January 2018

SCOPE OF REGISTRATION

The TuffStuff® GRP Flat Roof System relies on other construction products, materials and components to form a complete roof, balcony or walkway; overall compliance will therefore be dependent on final specification.

The TuffStuff® GRP Flat Roof System is fully bonded to the roof substrate and should resist wind suction likely to occur, provided the timber substrate is adequately fixed to the roof structure.

A GRP flat roof can be configured to satisfy cold roof or warm roof specifications

A Non-Slip coating is available for balconies and walkways.

For Scotland purposes:

Cold flat roof constructions are not acceptable in Scotland.

CONDITIONS OF CERTIFICATE

Site specific construction details will be required.

The products must be installed in accordance with the TuffStuff® Installation guide.

For Scotland purposes:

The products used as components of the system shall be manufactured and installed strictly in accordance with the manufacturer's instructions, in accordance with the certificate holder's instructions and fully in accordance with the accredited certification and supporting test

The specifications and materials referred to have been assessed and approved in accordance with the Building (Scotland) Regulations 2004 and in accordance with the supporting guidance in the Domestic Technical Handbooks which came into force with effect from 1 October 2017.

Where reference is made on a plan or specification document to any Code of Practice, British or European Standard or manufacturer's instruction it shall be construed as a reference to such publication in the form in which it is in force at the date of this registered detail.

The materials specified shall not be changed without first gaining approval so to do. Failure to do so will invalidate the registered detail.

The Registered Detail should not be regarded as a formal approval under the building warrant process prescribed by the Building (Scotland) Act 2003 enacted from 1 May 2005. It supports the site-specific building warrant submission required in every case.











Certificate No: EW816

REGULATIONS

LABC and LABSS consider that, TuffStuff® GRP Flat Roof System will meet the functional requirements of the Building Regulations (listed below and adjacent) if the criteria detailed in this certificate are met;



THE BUILDING REGULATIONS 2010 (AS AMENDED) ENGLAND & WALES

Regulation 7 Materials and workmanship

Note: The system can contribute to meeting

this requirement.

AD B Fire Safety

Note: The system is acceptable.

AD C Resistance to Moisture Note: The system is acceptable.

AD H Drainage and Waste Disposal Note: Adequate provision shall be made for

rainwater to be carried from the roof of

the building.

AD L Conservation of Fuel and Power

Note: The system can form part of a roof construction to meet Part L. The thermal

insulation performance of the system should be considered in the context of the contribution made to the overall performance of the roof structure.

AD M Access to and Use of Buildings

Note: Textured non-slip finish is available for

balcony/walkways subject to light foot

traffic.



THE BUILDING REGULATIONS 2010 (AS AMENDED) ENGLAND

AD L1 Conservation of Fuel and Power Note: The system can form part of a ro

The system can form part of a roof construction to meet Part L. The thermal insulation performance of the system should be considered in the context of the contribution made to the overall performance of the roof structure.



THE BUILDING REGULATIONS 2010 (AS AMENDED) WALES

AD L1 Note: Conservation of Fuel and Power
The system can form part of a roof
construction to meet Part L. The thermal
insulation performance of the system
should be considered in the context of
the contribution made to the overall
performance of the roof structure.





THE BUILDING (SCOTLAND) **REGULATIONS 2004 (AS** AMENDED)

Technical Handbooks - Domestic

Durability, workmanship and Regulation 8

fitness of materials

0.8.5: Ways of establishing the

fitness of materials

Regulation 9 Building Standards applicable

to construction

Note: Construction shall be

> carried out so that the work complies with the applicable requirements of schedule 5.

Mandatory

Standard 2.8 Spread from neighbouring

buildings

Note: The system is acceptable

provided it is constructed in accordance with the manufacturer's details to give

an FAA/FAB rating.

Mandatory

Standard 3.6

Note:

Surface water drainage Adequate steps must be taken to provide a means of rainwater disposal to satisfy guidance clause 3.6.1.

Mandatory

Standard 3.10 Precipitation

Note: The system is acceptable

provided it is constructed in accordance with the manufacturer's details and by an accredited contractor.

Mandatory

Standard 3.15 Condensation

Note: The system is acceptable

provided it is constructed in accordance with the manufacturer's details and by an accredited contractor. Condensation risk assessment should be provided if requested by the verifier.

Mandatory

Standard 6.2

Note:

Building insulation envelope The system will achieve the required U-value provided it is constructed in accordance

with the manufacturer's details and by an accredited contractor. Effect on thermal

value is negligible.



varranty NON REGULATORY

LABC Warranty

The use of the TuffStuff® GRP Flat Roof System has not been assessed to meet the requirements of the LABC Warranty Technical Manual. If you would like to discuss a specific use please make an enquiry to

technical.services@labcwarranty.co.uk



BS 476 Part 3 External Fire Exposure Roof Test 346191 - F.AA (Exova Warrington)

BS 476 Part 3 External Fire Exposure Roof Test 325184 - F.AB (Exova Warrington)

BS EN 1928: 2000, Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets for roof waterproofing -Determination of watertightness (BBA Test Report No 55191)

BSI EN ISO 9001: 2008 - Quality Management System Certificate FS 622967

BSI ISO 14001:2004 - Environmental Management System Certificate EMS 641663

450gm Mat Material Safety Data Sheet

Acetone Safety and Data COSHH Sheet Catalyst Material Safety Data COSHH Sheet

TuffStuff® Basecoat Safety and Data Sheet

TuffStuff® Polyurethane Trim adhesive Material Safety Data Sheet

TuffStuff® Topcoat Safety and Data Sheet Installation Guide - June 2016 (Revision 7)

Preformed GRP Trims Brochure -February 2015 (Revision 5)

TuffStuff® Warranty Certificate -Specimen - September 2015 (Revision A)

















INTRODUCTION TO Tuff Techpro

POLYURETHANE LIQUID WATERPROOFING SYSTEM

TuffTechPRO® VP/UV flat roof waterproofing system is a tough totally seamless waterproof encapsulating membrane for many types of flat roofs.

It is a high build, elastomeric, moisture triggered polyurethane membrane, comprising of three layers incorporating a separate technically advanced reinforcement layer. It cures to form a totally waterproof membrane across the whole roof area.

Introduction

TuffTechPRO® VP/UV, with built in solar reflectivity, provides excellent thermal and UV stability for all climatic conditions. It is fast curing and will remain flexible throughout its service life. The complete system provides a seamless barrier against water ingress yet is vapour permeable.

TuffTechPRO® VP/UV has excellent wetting out and moulding capabilities allowing complex shapes and details to be dealt with easily. Roof penetrations, ventilation and cooling plant can all be sealed and new plant easily accommodated.

TuffTechPRO® VP/UV is cold applied and does not use any form of heat during installation. The use of heat or naked flames are now often prohibited by building insurance polices.

A TuffTechPRO® VP/UV roof can be recoated at any time prior to the end of its maintenance life thus extending its working life indefinitely.









TuffTechpro



TuffTechPRO® VP/UV can be applied to a wide range of substrates including:

- Felt
- Asphalt
- Concrete/Screeds (28 day cured)
- Fibre Cement
- Metals
- Polycarbonate
- PVC
- **GRP**
- ✓ Tissue Faced Insulation Board (Rockwool etc.)
- **☑** Glass (subject to an adhesion test)

Plus many other waterproofing membranes/systems. It has excellent adhesion properties and can be brush or roller applied.

FEATURES

- ✓ Totally Seamless no welds, joints or overlaps
- **▼** Vapour Permeable
- Remains Flexible throughout its service life
- Fast Curing High Build, easy joint bridging
- **UV** Resistant

BENEFITS

- Long Life
- Complex Details are easily accommodated
- Minimal Disruption whilst work is carried out
- Can be recoated at any time further extending life span
- ✓ Can be applied to most flat roofing substrates



info@tuffwaterproofing.co.uk











ROOF AREA	REFURBISHMENT	FUL	L SYSTEM	
(m²)	Drum TTP01 (15KG)	Drum TTP01 (15KG)	Mat TTP02	Mat TTP04
5	1	1		1
10	1	2		1
15	1	2		1
20	1	3		1
25	1	4		1
30	2	4		1
35	2	5	1	
40	2	5	1	
50	2	7	1	
60	3	8	1	1
70	3	9	1	1
80	4	10	1	1
90	4	12	1	1
100	5	13	2	





Refresher = up to 25m² per tin

System = up to 8m² per tin

N.B. The performance and integrity of the TuffTechPRO® system is dependent on a sound, suitable substrate and surface conditions





TuffTechPRO® is a brand name of Tuff Waterproofing Ltd





Tuff Techpro

TECHNICAL DATA

PROPERTIES	VALUES	METHOD		
SPECIFIC GRAVITY (KG/M³)	1.320 - 1.420	DIN 53 217		
VISCOSITY AT 23°	2.650 cps	ASTM D2196-86		
DRY EXTRACT	>90	EN 1768		
FLASH POINT (°C)	42°C	ASTM D93		
ASHES AT 450°C % WEIGHT	42-47%	EN 1879		
TEMPERATURE	2°C and rising and not exceeding 30°C			
HARDNESS SHORE @ 23°C	C>75			
TENSILE STRENGTH)3 N	//Pa		
DRY TIME	2-8 hours. Fully	cured 24 hours		
OVERCOAT TIME	±5 - ±4	8 hours		
ELONGATION	>400%			
WATER VAPOUR RESISTANCE	μ =2.500			
CONCRETE ADHERENCE	>2 MPA			





















Tuff Techpro

APPLICATION GUIDE



Benefits and product information

- Approved for use on Green Roof.
- TuffTechPRO® can be used on new or existing roofs, walkways, balconies, gutters etc.
- Application with solvent resistant roller.
- Use fully reinforced with TuffTechPRO® REINFORCING MAT ensures correct thickness.
- Can be used all year round.
- Fully trafficable.
- Instantly rain resistant after application.
- Seamless membrane.
- Excellent adhesion to different substrates: plywood, bitumen membranes, asphalt, metals, brick, concrete, wood.
- Fresh concrete must be cured for 28 days.
- On EPDM and TPO it is recommended to install patch test to check compatibility.
- Never use silicone sealants. Always use PU based mastics.
- It does not require ADR transport.

Storage

- Store unopened in original container in a cool dry place within 5°C - 25°C out of direct sunlight.
- Protect from frost. Keep away from sources of ignition.
- For transportation purposes ensure that product is upright and the lid fully closed.
- Shelf-life 6 months. TuffTechPRO® can be used after a few weeks if opened, just remove skin and stir contents.

TuffTechPRO® application instructions

STIR BEFORE USE

- Apply when ambient temperature is minimum of 2°C and rising and not exceeding 30°C
- 2. Ensure substrate is in good condition, dry, clean and free from dust, moss or lichen.
- 3. All edge trims to be fixed to substrate prior to application of TuffTechPRO®.
- 4. TuffTechPRO® is self-terminating.
- 5. Open tin and mix thoroughly before using.
- 6. Apply TuffTechPRO® straight out of the can onto the substrate using a solvent resistant roller. Dry roll TuffTechPRO® REINFORCING MAT into the product until the TuffTechPRO® is drawn through.
- 7. It is advised to start at the perimeter of the area including upstands to a minimum of 150mm (if possible), ensuring the matting overlaps any trims, joints or change of material by 50mm.
- 8. Infill the remaining field area using the same method as above using TuffTechPRO® REINFORCING MAT, at a minimum coverage rate of 1.27Kg per m². The whole area including trims must be coated to form a continuous seamless membrane. Following the initial cure, apply a final layer at a rate of 0.6 Kg per square metre. Please take time to make sure no pin holes exist. Curing time is approximately 2-12 hours depending on weather. Fully cured in 24 hours. These are minimum coverage rates, actual performance will depend upon substrate surface.

TOOLS

APPLICATION

DRYING

CLEANING

STORAGE



TuffTechPRO® is a brand name of Tuff Waterproofing Ltd

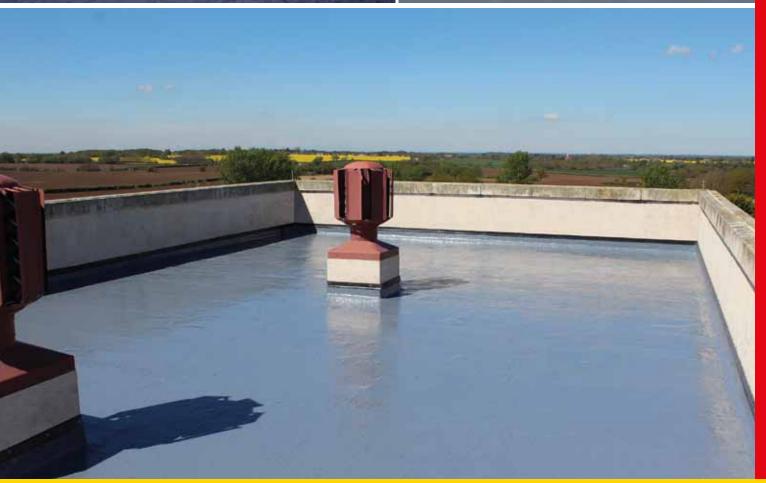














tuffstuffgrp



@tuffstuffgrp



Tuff Waterproofing Limited



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