

# Flat Roofing

**Whatever type of flat roof you are building, there are four main components to be considered:**

Structural Deck  
Vapour Control Layer  
Insulation  
Waterproofing

## **Key Flat Roofing Regulations:**

BS6229: 2003 Flat Roofs with continuously Supported Coverings.  
BS8217: 2005 Reinforced Bitumen Membranes For Roofing.  
Part L (J for Scotland), and Part F of The Building Regulations 2005 - Affecting Insulation, ventilation and energy efficiency.  
BS 8218:1998 Code of practice for mastic asphalt roofing  
SPRA Design Guide For Single Ply Roofing

## **Additional factors include:**

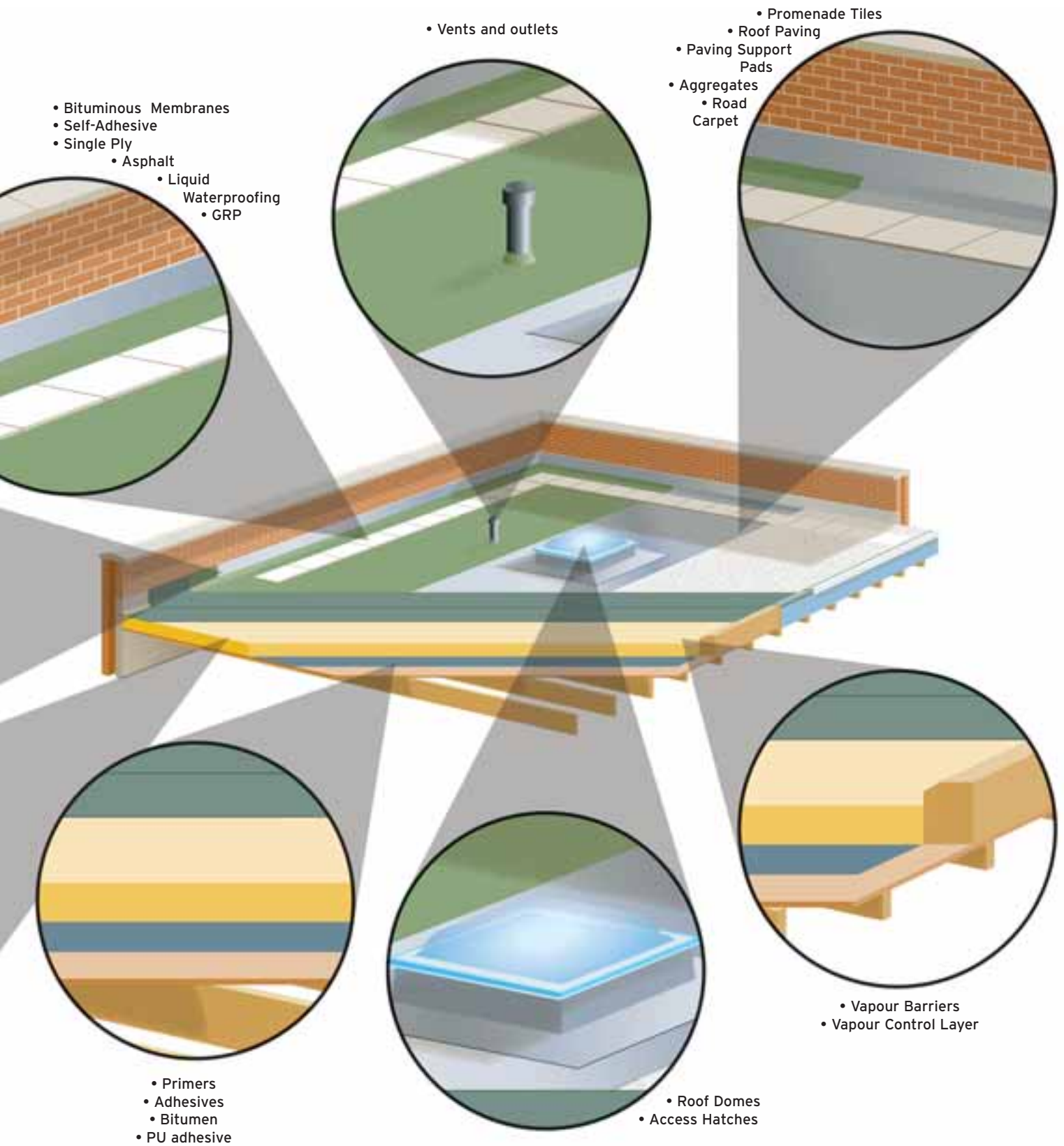
Condensation risk  
Local climate  
Exposure  
Roof loading  
UV Analysis  
Part L Building Standards - Insulation, ventilation and energy efficiency  
Planning permission requirements  
Style and design of surrounding buildings

• Lead Trim

• Insulation  
• Decking

## **Our Flat Roofing Supply Partners**

- Acrypol Products
- Aggregate Industries
- Associated Lead Mills
- British Lead Mills
- Cox Building Products
- Dow
- FDT UK
- Filon
- Flogas UK
- Hambleside Danelaw
- Icopal
- Jamestown Metals
- Kingspan Insulation
- Klober
- Knauf
- Laybond



- Marley Waterproofing
- Montague Meyer
- Permanite Engineered Roofing Systems
- Pennine Aggregates

- Quarrypak
- R.I.W.
- Rockwool
- Royston Lead
- Ruberoid Building Products
- Sealoflex
- Sitek Fresco

- Slate Systems
- Smartply
- Spartan
- The VELUX Company
- Total Bitumen Products
- Ubbink

- Vencel Resil
- Whitesales
- Woodfibre UK
- WP Metals
- Zoontjens

# Flat Roofing Contents



## Flat Roofing Applications

Cold Roof  
Warm Roof  
Inverted Roof  
OSB/Ply Deck  
Metal Deck  
Concrete Deck



## Flat Roofing Membranes

Roofing Systems  
Torch On Felts  
High Performance Elastomeric Pour and Roll  
Type 5 and Type 3



## Single Ply Roofing



## Asphalt



## Flat Roofing Solutions

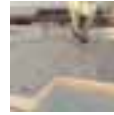
Waterproofing  
Solar Reflective  
Preparation  
General Accessories



## GRP Flat Roofing System



## Cold Applied Liquid Waterproofing Systems



## Flat Roof Insulation



## Flat Roof Decking

OSB  
Plywood



## Bitumen



## Gas Products

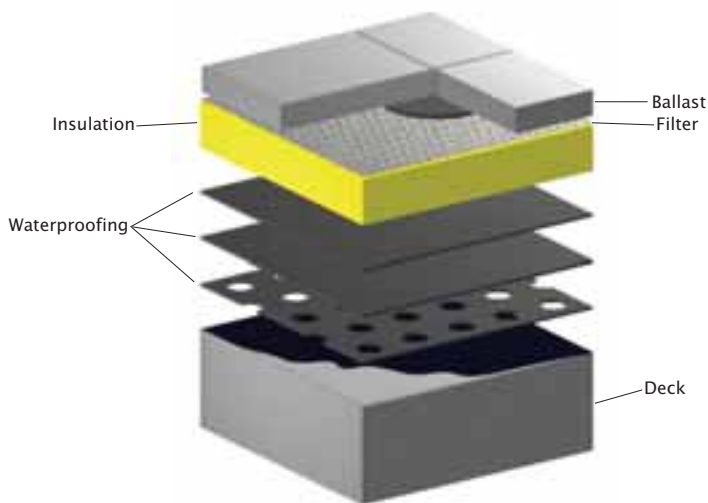
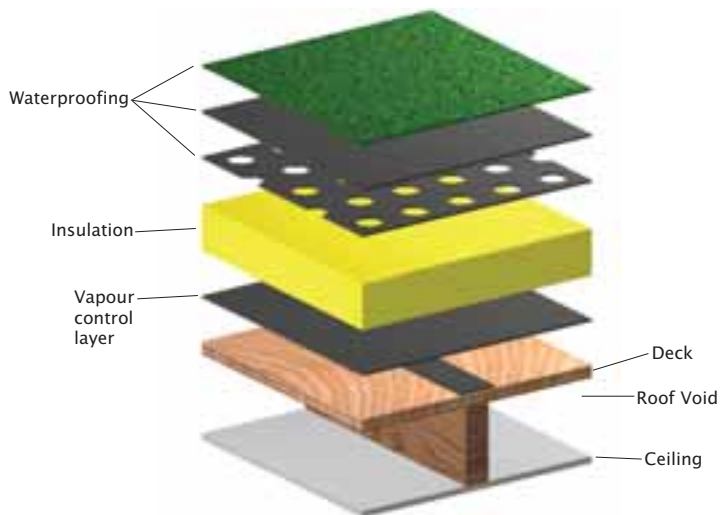
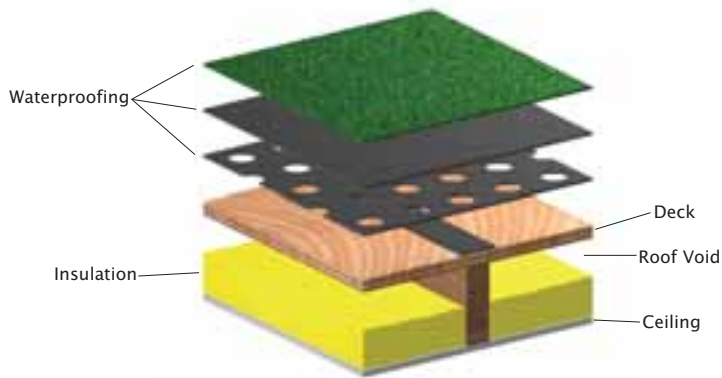


## Roof Paving and Promenade Tiles



## Flat Roofing Accessories

Lead  
Flat Roof Domes  
Tubular Skylights  
Flat Roof Outlets  
Breather Vents  
Flat Roof Trim  
Aggregates



## Cold Roof

### Advantages

- Reduced installation time for waterproofing.
- Reduced build up above deck, in respect of impact on upstands.

### Disadvantages

- Require often complicated cross-ventilation of ceiling void to meet building regulations.
- Deep ceiling void required to accommodate insulation to comply with building regulations.
- 'Cold bridging' an issue, making it difficult to comply with building regulations.
- Roof structure more susceptible to effects of solar gain and thermal movement.

## Warm Roof

### Advantages

- More easily compliant with thermal requirements of building regulations.
- Eliminates 'cold bridging'.
- No cross-ventilation of ceiling void required.
- Deep ceiling voids are not required, reducing cost of timber joists.
- Roof structure protected from solar gain, reducing the effects of thermal movement.

### Disadvantages

- Increased build up above deck, in respect of impact on upstands.
- Full installation slower than a 'cold roof', however, the structure can be made water-tight at Vapour Control Layer stage.

## Inverted Roof

### Advantages

- Roof can be used as a recreational space with paving (subject to engineers Calc).
- Reduced installation time for waterproofing.
- Waterproofing protected from solar degradation.
- Aesthetic appeal.

### Disadvantages

- Roof structure must be capable of supporting dead and live loads.
- Longer-term, maintenance inspections can be an issue.
- Drainage requires careful consideration.

## OSB/3 18mm

### Advantages

- Complies with BS EN300 and is CE2 Approved for structural use.
- Can be laid to falls, to provide drainage.
- Easy to cut and secure to structural supports.
- Retains structural stability in high humidity applications.
- Readily available from specialist distributors.

### Disadvantages

- Limited unsupported span.
- Performance limitations in respect of dead loads.

## Metal

### Advantages

- Light-weight and quick to install.
- Wide range of profiles available.
- Long-span capabilities.
- Can be laid to falls, to provide drainage.

### Disadvantages

- Classified as a 'lively deck' requiring consideration when detailing waterproofing.
- Corrosion of un-treated cut edges can be an issue on steel decking.
- Limited dead load performance.
- Limited wind load performance.
- Acoustic performance limited.

## Concrete

### Advantages

- Capable of supporting high dead loads (subject to engineers Calc).
- Classified as a 'stable deck' simplifying waterproofing detailing.
- Long 'design life'.

### Disadvantages

- Construction process is slow, requiring specialist contractors.
- Long 'drying out' period, before waterproofing can be installed.
- Generally requires a screed to provide falls.

# Flat Roofing Membranes

A full range of flat roofing membranes are available from Type 3 glass fibre, to full roofing systems for warm, inverted and cold roofs.

## Roofing Systems



Icopal				Marley Waterproofing	
Product	Colour	Weight (kg)	Roll Size (m)	Product	
<b>ICOPAL CALLENDERS FIRESMART INFINITY</b>				<b>20 Year Systems</b>	
<b>POUR AND ROLL</b>				<b>GOLDSEAL</b>	
Icopal Callenders FireSmart Infinity Pour & Roll	Blue/Grey	38	8 x 1	<b>POUR AND ROLL</b>	
Icopal Callenders FireSmart Infinity Pour & Roll	Brown	38	8 x 1	Systems perforated preparation layer	
Icopal Callenders FireSmart Infinity Pour & Roll	Green	38	8 x 1	Goldseal underlayer sand	
Icopal Callenders Infinity Pour & Roll Underlay	N/A	36	6 x 1	Goldseal cap sheet	
Icopal Callenders Infinity Polyester Metal Lined Vapour Barrier	N/A	40	20 x 1	Goldseal cap sheet	
<b>TORCH ON</b>				Taping strip sand	
Icopal Callenders FireSmart Infinity Torch On	Blue/Grey	36.5	7 x 1	<b>TORCH ON</b>	
Icopal Callenders FireSmart Infinity Torch On	Brown	36.5	7 x 1	Systems Torch On VCL sand	
Icopal Callenders FireSmart Infinity Torch On	Green	36.5	7 x 1	Goldseal Torch On underlayer sand	
Icopal Callenders Infinity Polyester Metal Lined Vapour Barrier	N/A	40	20 x 1	Goldseal Torch On cap Sheet	
				Goldseal Torch On cap sheet	
				<b>MACH ONE</b>	
				PU adhesive	
				Mach One membrane	
				Mach One membrane	
				Mach One detailing membrane	
				Mach One detailing membrane	
				Mach One Support Layer	
				<b>15 Year Systems</b>	
				<b>SYSTEM 600</b>	
				<b>POUR AND ROLL</b>	
				Systems perforated prep layer	
				System 600 underlayer sand	
				System 600 cap sheet	
				System 600 cap sheet	
				Taping strip sand	
				<b>TORCH ON</b>	
				Systems Torch On VCL sand	
				System 600 Torch On underlayer	
				System 600 cap sheet	
				System 600 cap sheet	

Ask your branch for fire retardant products from the above suppliers.

### Colour Chart

	Blue/Grey
	Brown
	Green



	Green
	Brown
	Black

Training - Some products require approved contractors for installation. Speak to your local branch for details of training opportunities.

**Permanite Engineered Roofing Systems**

Colour	Weight (kg)	Roll Size (m)	Product	Colour	Weight (Kg)	Roll Size (M)
<b>Ultra prevENT Membranes (Pour and Roll)</b>						
			Ultra prevENT Grey Slate	Grey	40	8 x 1
			Ultra prevENT Brown Slate	Brown	40	8 x 1
			Ultra prevENT Underlay	N/A	36	16 x 1
<b>Ultra prevENT Membranes (Torch-on)</b>						
Mineral	26	10 x 1	Ultra prevENT T-O Grey	Grey	40	8 x 1
N/A	30	12 x 1	Ultra prevENT T-O Brown	Brown	40	8 x 1
Green mineral	38	8 x 1	Ultra prevENT T-O Sand Underlay	N/A	45	16 x 1
Brown mineral	38	8 x 1				
<b>Ultra prevENT Membranes (Mechanically Fixed)</b>						
N/A	N/A	16 x 0.1	Ultra prevENT M-F Grey	Grey	40	8 x 1
			Ultra prevENT M-F Brown	Brown	40	8 x 1
N/A	39	15 x 1	Ultra prevENT M-F Black	Black	40	8 x 1
N/A	26	8 x 1				
Green mineral	36	8 x 1				
Brown mineral	36	8 x 1				
<b>Superflex FireBLOC Membranes (Pour &amp; Roll)</b>						
N/A	6.5	N/A	Superflex FireBLOC 350 Green	Green	38	8 x 1
Green mineral	38	7.5 x 1	Superflex FireBLOC 350 Blue/Grey	Blue/Grey	38	8 x 1
Brown mineral	38	7.5 x 1	Superflex FireBLOC 350 Brown	Brown	38	8 x 1
Green mineral	38	8 x 1	Superflex FireBLOC 250 Green	Green	32	8 x 1
Brown mineral	38	8 x 1	Superflex FireBLOC 250 Sand	N/A	40	16 x 1
N/A	32	10 x 1	Superbase FireBLOC 180 Underlay	N/A	34	16 x 1
<b>Superflex FireBLOC Membranes (Torch-on)</b>						
			Superflex 350 T-O FireBLOC Green	Green	40	8 x 1
			Superflex 350 T-O FireBLOC Blue/Grey	Blue/Grey	40	8 x 1
			Superflex 350 T-O FireBLOC Brown	Brown	40	8 x 1
			Superflex 250 T-O FireBLOC Green	Green	35	8 x 1
			Superbase 180 T-O FireBLOC Underlay	N/A	40	16 x 1
<b>Universal High Performance FireBLOC VCLs</b>						
Mineral	26	10 x 1	Superbar FireBLOC	N/A	40.5	20 x 1
N/A	30	12 x 1	Superbar FireBLOC SA	N/A	40.5	20 x 1
Green mineral	38	8 x 1	Superbar FireBLOC Double-Stick	N/A	34	16 x 1
Brown mineral	38	8 x 1	Superbar FireBLOC T-O	N/A	36.6	12 x 1
N/A	N/A	16 x 0.1				
N/A	39	15 x 1				
N/A	26	8 x 1				
Green mineral	36	8 x 1				
Brown mineral	36	8 x 1				



## Torch On Felts

Icopal				Marley Waterproofing	
Product	Colour	Weight (Kg)	Roll Size (M)	Product	
<b>SBS</b>				<b>SBS</b>	
<b>ICOPAL ANDERSON</b>				RapidTorch SBS cap sheet	
Tecnatorch Sand	N/A	36.5	7.5 x 1	RapidTorch SBS glass underlay	
Tecnatorch MS	Green	36.5	7.5 x 1	RapidTorch SBS polyester underlay	
Tecnatorch MS	Blue/Grey	36.5	7.5 x 1	Standard SBS underlayer	
Tecnatorch MS	Brown	36.5	7.5 x 1	Premium SBS underlayer	
Tecnatorch MS	White	36.5	7.5 x 1	Torchgum cap sheet	
<b>ICOPAL ANDERSON</b>				Torchgum cap sheet	
FireSmart Tecnatorch MS	Green	36.5	7.5 x 1	Torchgum cap sheet	
FireSmart Tecnatorch MS	Blue/Grey	36.5	7.5 x 1	Torchgum cap sheet	
FireSmart Tecnatorch MS	Brown	36.5	7.5 x 1	Torchgum sanded top layer	
FireSmart Olympic Thermaweld	Green, Blue Grey & Brown	40	8 x 1	Standard SBS underlayer	
<b>ICOPAL CALLENDERS</b>				Premium SBS underlayer	
GEL +PLUS Sand	N/A	38	8 x 1	Quikflo cap sheet	
GEL +PLUS MS	Green	41	8 x 1	Quikflo cap sheet	
GEL +PLUS MS	Blue/Grey	41	8 x 1	Quikflo cap sheet	
GEL +PLUS MS	Brown	41	8 x 1	Quikflo sanded top layer	
GEL +PLUS MS	Charcoal	41	8 x 1	<b>APP</b>	
Icopal Universal Torch On SBS Underlay	N/A	34	16 x 1	APP glass underlay	
Icopal Premium Torch On Underlay	N/A	36	16 x 1	APP sand top layer	
Icopal Torch On Venting Base Layer	N/A	26	20 x 1	Torchstik sanded top layer	
Icopal Olympic Thermaweld Cap Sheets	Green, Blue Grey & Brown	40	8 x 1	Torchstik polyester underlayer	
<b>ICOPAL TOTAL TORCH</b>				Torchstik glass underlayer	
Icopal Total Torch Vapour Control Layer	N/A	30	8 x 1	Torchstik cap sheet	
Icopal Total Torch Vapour Dispersion Layer	N/A	30	7.5 x 1	Torchstik cap sheet	
<b>PERFORMA</b>					
Perfoma SBS Plus	Green, Brown, Blue Grey & Sand	38	8 x 1		
<b>APP</b>					
Icopal GAPP APP +PLUS Plain	N/A	38	8 x 1		
Icopal GAPP APP +PLUS	Green	38	8 x 1		
Icopal GAPP APP +PLUS	Brown	38	8 x 1		
Icopal Universal APP Underlay	N/A	34	16 x 1		



## Venting Layers

Product	Weight (kg)	Roll Size (m)	Product
Icopal Torch On Venting Base Layer	26	20 x 1	Ventura

## Vapour Barriers

Product	Water Vapour Resistance	Weight (kg)	Roll Size (m)	Product
Icopal Total Torch Vapour Control Layer	(<0.01g/m <sup>2</sup> d)	32	7.5 x 1	Systems Torch On Vapour control layer
Icopal Total Torch Vapour Dispersion Layer	N/A	30	8 x 1	
Torch Safe Vapour Control Layer	(<0.01g/m <sup>2</sup> d)	30	7.5 x 1	
Torch Safe Underlay	N/A	40	10 x 1	
Torch safe Detailing Underlay	N/A	40	40 x 10	

## Colour Chart

	Green		White
	Brown		Blue/Grey
	Charcoal		



	Green
	Blue/Grey
	Brown

Permanite Engineered Roofing Systems

Colour	Weight (kg)	Roll Size (m)	Product	Colour	Weight (Kg)	Roll Size (M)
<b>SBS</b>						
<b>Specialist Torch-on Membranes</b>						
Green	36	8 x 1	Superflex T-O Anti-Root Slate Finish	N/A	36	8 x 1
N/A	36	16 x 1	Superflex T-O Copper	Copper	38.8	8 x 1
N/A	25	8 x 1	Quadra Stick (Venting)	N/A	30	10 x 1
N/A	25.6	8 x 1	<b>Quadra Membranes (Venting/Torch-on)</b>			
N/A	36	16 x 1	Quadra Dark Grey Slate (AD MEC 4)	Grey	37	7.5 x 1
Green	38	8 x 1	Quadra Rock		28	7.5 x 1
Blue/Grey	38	8 x 1	<b>Permatorch 4.5 Membranes (Torch-On)</b>			
Black	38	8 x 1	Permatorch 4.5 Green	Green	40	8 x 1
Brown	38	8 x 1	Permatorch 4.5 Black	Black	40	8 x 1
N/A	36	8 x 1	Permatorch 4.5 Brown	Brown	40	8 x 1
N/A	36	16 x 1	<b>Turbo Torch SBS Membranes (Torch-on)</b>			
N/A	25.6	8 x 1	Turbo Torch Green	Green	34.6	8 x 1
Grey	36	8 x 1	Turbo Torch Blue/Grey	Blue/Grey	34.6	8 x 1
Black	36	8 x 1	Turbo Torch Brown	Brown	34.6	8 x 1
Brown	36	8 x 1	Turbo Torch Black	Black	34.6	8 x 1
N/A	33.6	8 x 1	Turbo Torch Talc (3mm)	N/A	37.3	16 x 1
N/A	36	16 x 1	<b>Adesso APP Membranes (Torch-On)</b>			
N/A	34	8 x 1	Adesso Green Slate	Green	34	8 x 1
N/A	36	8 x 1	Adesso Brown Slate	Brown	34	8 x 1
N/A	25.6	8 x 1	Adesso Black Slate	Black	34	8 x 1
N/A	36	16 x 1	<b>Torch-on Underlays</b>			
Green	38	8 x 1	Talc 4mm Torch	N/A	32	8 x 1
Blue/Grey	38	8 x 1	Glassgum Underlay	N/A	39	15 x 1
Brown	38	8 x 1	Universal Torch Underlay (2.0mm)	N/A	32	16 x 1
			Torch Vent Underlay	N/A	28	20 x 1

Weight (kg)	Roll Size (m)	Product	Weight (kg)	Roll Size (m)
30	20 x 1	Torch Vent Underlay (Glass-based)	28	20 x 1

Water Vapour Resistance	Weight (kg)	Roll Size (m)	Product	Water Vapour Resistance	Weight (kg)	Roll Size (m)
500 - 2000 MN/sg	39	15 x 1	Superbar FireBLOC T-O	5000 MN/sg	37.5	12 x 1



# High Performance Elastomeric Pour And Roll

Icopal				Marley Waterproofing
Product	Colour	Weight (kg)	Roll Size (m)	Product
<b>ICOPAL ANDERSON HT ELASTOMERIC</b> Polyester Based Membrane with Elastomeric Modified Bitumen				<b>ELASTOMERIC PREMIUM</b> Polyester Based Felt With Elastomeric Modified Bitumen
HT 180 Elastomeric Sand	N/A	36	16 x 1	180E underlay sand
HT 250 Elastomeric Sand	N/A	40	16 x 1	350E top layer sand
HT Elastomeric MS	Green	30	8 x 1	350E cap sheet
HT Elastomeric MS	Blue Grey	30	8 x 1	350E cap sheet
HT Elastomeric MS	Brown	30	8 x 1	350E cap sheet
HT Elastomeric MS	White	30	8 x 1	
<b>ICOPAL ANDERSON POWER SBS</b> Polyester Based Membrane with Elastomeric Modified Bitumen				<b>ELASTOMERIC STANDARD</b> Polyester Based Felt With Elastomeric Modified Bitumen
Power SBS 125 Underlay	N/A	29	16 x 1	250E underlay / Top layer sand
Power SBS 180 Sand	N/A	36	16 x 1	250E cap sheet
Power SBS 250 Sand	N/A	40	16 x 1	250E cap sheet
Power SBS 250 MS	Green	30	8 x 1	250E cap sheet
Power SBS 250 MS	Blue Grey	30	8 x 1	
Power SBS 250 MS	Brown	30	8 x 1	<b>SELF ADHESIVE</b> Supastik Cap Sheet
Power SBS 350 MS	Green	38	8 x 1	Supastik Underlayer - plain
Power SBS 350 MS	Blue Grey	38	8 x 1	Supastik Polyester underlayer
FireSmart Power cap Sheets	Green, Blue Grey, & Brown	30	8 x 1	Supastik Primer Supastik Sealant
<b>ICOPAL VULCAFLEX SBS</b> Polyester Based Membrane with Elastomeric Modified Bitumen				
Vulcaflex SBS Sand	N/A	40	20 x 1	
Vulcaflex SBS MS	Green	34	10 x 1	
Vulcaflex SBS MS	Blue/Grey	34	10 x 1	

## Vapour Barriers

Product	Water Vapour Resistance	Weight (kg)	Roll Size (m)	Product
Vapourflex Polyester Metal Lined Vapour Barrier	3900 MN/sg	40	20 x 1	Vapourseal
Vapourbar Vapour Control Layer Control Layer	3900 MN/sg	36	20 x 1	Vapourstop Traffic-Able Heat Activated VCL Supastik Vapour control layer sand

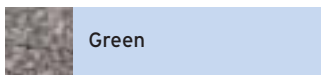
## Colour Chart



Permanite Engineered Roofing Systems

Colour	Weight (kg)	Roll Size (m)	Product	Colour	Weight (kg)	Roll Size (m)
			<b>Challenger SBS Pour and Roll</b>			
			Challenger SBS 250 Green	Green	39	10 x 1
N/A	29	16 x 1	Challenger SBS Green	Green	34	10 x 1
N/A	34	8 x 1	Challenger SBS Sand	N/A	38.8	20 x 1
Green	38	8 x 1	<b>Challenger Polyester Pour and Roll</b>			
Grey	38	8 x 1	Challenger Polyester Green	Green	34	10 x 1
Brown	38	8 x 1	Challenger Polyester Sand	N/A	39	20 x 1
			<b>Standard Vapour Control Layer</b>			
			Ruberfoil SBS (Hessian/Alu) 970mm Wide (19.4m <sup>2</sup> Per Roll)	N/A	32.5	20 x 1
N/A	30	12 x 1	<b>Coldseal Self Adhesive</b>			
Green	32	8 x 1	Coldseal Cap Sheet	N/A	20	6 x 1
Grey	32	8 x 1	Coldseal Underlay	N/A	18	8 x 1
Brown	32	8 x 1				
Green	28.8	8 x 1				
N/A	26.4	12 x 1				
N/A	30	12 x 1				
	12.5					
	6 x 600ml sachets					

Water Vapour Resistance	Weight (kg)	Roll Size (m)	Product	Water Vapour Resistance	Weight (kg)	Roll Size (m)
	37	16 x 1	Superbar FireBLOC	5000 MN/sg	40.5	20 x 1
500-2000 MN/sg	36	20 x 0.98	Ruberfoil SBS	N/A	32.5	20 x 1
	35	10 x 1				
	37.5	15 x 1				
	37.5	15 x 1				



Green



## Type 5 and Type 3

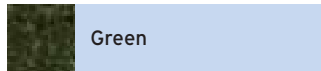
These are economy roofing felts, generally used for garages, sheds and other non-habitable buildings.

Icopal				Marley Waterproofing
Product	Colour	Weight (kg)	Roll Size (m)	Product
<b>ICOPAL ANDERSON HT POLYESTER</b> Polyester Based Felt With Oxidised Bitumen				<b>POLYESTER PREMIUM</b> Polyester Based Felt With Oxidised Bitumen
HT 125 Sand	N/A	29	16 x 1	BS747 Type 5U/125 underlayer sand
HT 180 Sand	N/A	36	20 x 1	BS747 Type 5B/350 top layer sand
HT 180 MS	Green	35	10 x 1	BS747 Type 5E/350 cap sheet
HT 250 Sand	N/A	40	20 x 1	BS747 Type 5B/250 underlayer / top layer
HT 250 MS	Green	38	10 x 1	BS747 Type 5E/250 cap sheet
HT 350 MS	Green	38	8 x 1	BS747 Type 5B/180 underlayer sand
HT 125 Taping Strip 100mm	N/A	N/A	16 x 100mm	BS747 Type 5E/180 cap sheet Taping strips (10 roll pack) sand
<b>TYPE 3 GLASS BASED FELTS</b>				<b>GLASS BASED FELTS</b>
Icopal Thermovent Type 3G Venting Layer	N/A	26	10 x 1	Venting base layer BS747 Type 3G
Icopal Thermoglas Type 3B	N/A	36	20 x 1	Glass underlay BS747 Type 3B sand Green
<b>GLASS BASED FELTS</b>				
Icopal Glastex Sand	N/A	36	20 x 1	
Icopal Glastex SBS Mineral	Green	30	10 x 1	

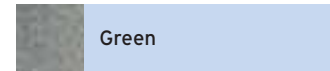
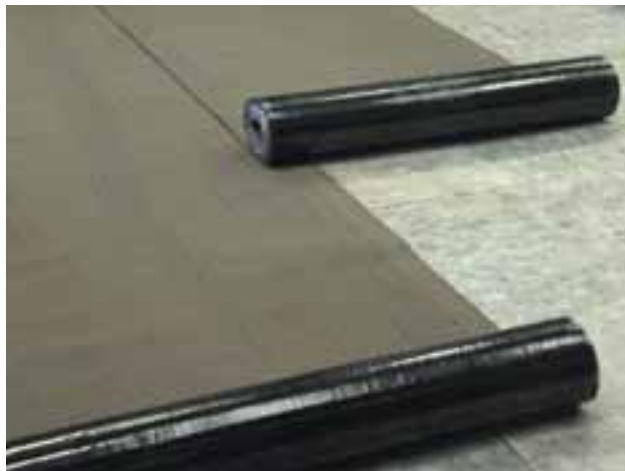
## Venting Layers

Icopal				Marley Waterproofing
Product		Weight (kg)	Roll Size (m)	Product
Icopal Thermovent Type 3G Venting Layer		26	10 x 1	Venting base layer BS747 Type 3G Ventura Torch on venting base layer

## Colour Chart



Green



Green

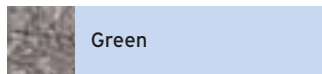


Permanite Engineered Roofing Systems

Colour	Weight (kg)	Roll Size (m)	Product	Colour	Weight (kg)	Roll Size (m)
			<b>BS 747 Type 5 (Polyester)</b>			
			Ruberfort HP 350	Green	36	8
			Ruberfort HP 350	Sand	34	8
N/A	29	16 x 1	Ruberfort HP 250	Green	39	10
N/A	34	8 x 1	Ruberfort HP 250	Sand	30	10
Green	38	8 x 1	Ruberfort HP 180	Green	34	10
N/A	30	10 x 1	Ruberfort HP 180	Blue/Grey	35	10
Green	32	8 x 1	Ruberfort HP 180	Sand (20m)	39	20
N/A	32	16 x 1	Ruberfort HP 180	Sand	33	16
Green	36	10 x 1	Ruberfort HP 125	Sand	29	16
N/A	N/A	16 x 100				
			<b>Glass Fibre Range</b>			
			Glasphalt 3B	Sand	36	20
N/A	26	10 x 1	Glasphalt 3E	Green	32	10
N/A	36	20 x 1	Glasphalt Perforated		34	20
			Glasphalt SBS	Green	34	10

Permanite Engineered Roofing Systems

Weight (kg)	Roll Size (m)	Product	Weight (kg)	Roll Size (m)
26	10 x 1	Rubervent 3G	26	10
30	20 x 1			



## Single Ply Roofing

We stock polymeric single ply sheets and a wide range of accessories. Single ply membranes are tough, flexible sheets, made predominately from a synthetic polymer (Polyisobutylene). FDT (UK)'s single-ply membrane, Rhepanol™ FK is suitable for three different roofing applications:

- Lightweight profile metal deck roofs where ballast would be unsuitable. The membrane is mechanically fixed with screws and load distribution plates making it ideal for fast-track new-build projects.

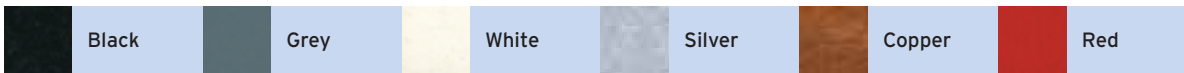
- For roofs that have a reinforced concrete or similar supporting deck.
- Where regular roof access is a requirement the membrane can be loosely laid and ballasted.
- The membrane can also be bonded with adhesive or bitumen, making it ideal for re-roofing projects.

### FDT

Product	Description	Thickness (mm)	Width/Length (m)
Rhepanol fk (One Sealing Edge)	One sealing edge and synthetic fleece backing (thickness includes backing)	2.5	1.05 x 15
			0.65 x 15
			0.52 x 15
			0.35 x 15
			1.05 x 10
Rhepanol fk (With Two Sealing Edges)	Double joint for parapet flashing and expansion joints (thickness includes backing)	2.5	1.05 x 15
			0.65 x 15
			0.52 x 15
			0.35 x 15
			0.25 x 15
Rhepanol f	Sealing membrane for forming of collars and other fittings on site	1.5	1.05 x 15 0.52 x 15
Vapour barrier fk 0.40	Only for loose laying	0.4	4 x 25

### Colour Chart

Product can be coated to any colour. Coloured membranes are available on request, but are not kept on stock.



### Accessories

Product	Width/Length (m)	Colour
GRIPFIX Strips	0.12 x 60	-
Cover Tape	100mm x 25	Grey
	150mm x 25	
	200mm x 25	
	350mm x 25	
Sealing Tape	40mm x 50	Grey
Internal Corner 90°		Grey
Internal Corner 90° Rapid		Grey
External Corner 90°		Grey
All Round Rooflight Corner External		Grey
All-Round Rooflight Corner Rapid (Universal)		Grey
Rhepanol Solvent Welding Agent	1kg can	
	5kg can	
Contact Adhesive 11	12kg (Coverage: 700g per m <sup>2</sup> for both surfaces)	

Product	Size	Colour
Paint		Copper, Silver
Precol Primer	5kg can	
Rhepanol Paste	300ml	Grey
Vario Roof Outlet (for cold roofs) with reducer and leaf guard	125 x 100mm 70 x 100mm	
Rhepanol Drip Edge		Grey



## Asphalt

Asphalt is a waterproofing system for flat roofs. Mastic Asphalt is one of the world's oldest waterproofing materials and is sold in a variety of grades for a wide range of roofing applications.

### Permanite Engineered Roofing Systems

#### Roofing

Product	British Standard	Application	Block Size	Coverage (m <sup>2</sup> )	Guarantee
Roofstar T	(BS 6925 Type R/988/1/T25)	Can be used on insulated warm roofs, un-insulated cold roofs and inverted/green roof configurations.	Nominal 20Kg (50 per tonne)	Nominal 20m <sup>2</sup> per tonne at 20mm thickness	10 Years
Permaphalt Polymer Modified Asphalt Roofing	(British Board Of Agreement Approved. BBA Cert. No. 89/2299)	Provides increased high temperature stability coupled with low temperature flexibility in all flat roofing situations, particularly over insulated substrates. NB. Permaphalt is only supplied to approved installers who are members of the Mastic Asphalt Council.	Nominal 20Kg (50 per tonne)	Nominal 20m <sup>2</sup> per tonne at 20mm thickness	20 years
Recreational Duty Roofing	N/A	Specially manufactured for use in external applications where mastic asphalt is subjected to pedestrian traffic, without point loading. It is designed to be applied as a 15mm thick top coat over a 10mm layer of Roofstar T.	Nominal 20Kg (50 per tonne)	Nominal 27m <sup>2</sup> per tonne at 15mm thickness	N/A

#### Paving

Product	British Standard	Application	Block Size	Coverage (m <sup>2</sup> per tonne)	Guarantee
Pavestar B	BS 1447/1/B/S	The basic paving grade with an asphaltic cement of 100% bitumen, providing proven performance at an economic price. Pavestar B is used as an external wearing course on footways, car parks and HGV service decks.	Nominal 20Kg (50 per tonne)	Nominal 20m <sup>2</sup> at 20mm thickness. 13m <sup>2</sup> at 30mm thickness. 10m <sup>2</sup> at 40mm thickness.	N/A
Gritted Paving	N/A	Specially manufactured for use as an external wearing course in areas which are subjected to regular foot traffic without point loading e.g. footways, pavements and access balconies.	Nominal 20Kg (50 per tonne)	Nominal 16m <sup>2</sup> at 25mm thickness.	N/A

#### Flooring

Product	British Standard	Application	Block Size	Coverage (m <sup>2</sup> )	Guarantee
Floorstar L	BS 6925 Type F 1076/11/B	It is a general purpose light duty grade for heated internal areas which are subjected to foot traffic only.	Nominal 20Kg (50 per tonne)	Nominal 20m <sup>2</sup> per tonne at 20mm thickness	N/A

#### Accessories

Product	Application	Roll Size
Black Sheathing Felt	Black sheathing Felt is used as a separating membrane directly beneath mastic asphalt roofing.	0.8 x 25m
Glass Fibre Tissue	Glass Fibre Tissue is used as a separating membrane directly beneath mastic asphalt paving and flooring systems. It is laid loose with minimum 50mm side and end laps.	1 x 100m

#### Additional Accessories:

- Cauldrons and Buckets.
- Paints.
- Rubbing sand - With the exception of vertical and sloping work, clean sharp sand should be rubbed evenly into the asphalt while it is still hot.
- Gauging battens.
- High Bond Primer.
- Expanded Metal Lathing (EML). Provides a mesh for keying Mastic Asphalt on vertical and sloping aspects.



## Flat Roofing Solutions

We stock a large range of flat roofing solutions that provide a protective, professional finish to many different applications. Liquid Roofing Systems are one of the most cost effective methods of making a new or existing roof waterproof.

### Waterproofing Products

	Product	Description	Base Material	Size	Coverage	Drying Time	Colours
<b>Acrypol</b>	Acrypol +	The original, versatile, single coat solution for providing waterproofing protection on flat roofs. Will bridge gaps up to 10mm.	Solvent	4 x 5kgs or drums of 20kg	1-2kg per m <sup>2</sup> (average)	2-3 days (average)	Solar White, Medium Grey, Black or any BS colour dependent on quantity
<b>Laybond</b>	Flexacryl	A one coat, waterproofing solution that provides immediate waterproofing in all weathers.	Acrylic	20kg, 5kg, 2.5kg, 1kg	1-2kg per m <sup>2</sup>	2-3 days	Grey, black, white
	All Weather Trowel	Bitumen mastic, multipurpose trowel grade waterproofing.	Bituminous	25 litre, 5 litre, 2.5 litre, 1 litre	0.3m <sup>2</sup> per litre	24 hours but the coating remains soft	N/A
	Bituproof Roofing Emulsion	Bitumen emulsion for medium brushing consistency.	Emulsion	200 litre, 25 litre, 5 litre	1.4m <sup>2</sup> per litre	4-6 hours but allow 24 hours between coats	Black
	Bituproof Heavy Duty Emulsion	Bitumen emulsion reinforced with organic fibre for use as a heavy brush coating.	Emulsion	200 litre, 25 litre, 5 litre	1.2m <sup>2</sup> per litre	4-6 hours but allow 24 hours between coats	Black
	Rufabrush	Contract grade, general purpose waterproofing solution for most roof surfaces.	Bituminous	200 litre, 25 litre, 5 litre, 2.5 litre	1.4m <sup>2</sup> per litre	24 hours	Black

### Solar Reflective Coatings

	Product	Description	Base Material	Size	Coverage	Drying Time	Colours
<b>Laybond</b>	Rufabrush Silver	Brush applied, bituminous waterproofing that reduces solar degradation.	Bituminous	25 litre, 5 litre	1.6m <sup>2</sup> per litre	6 hours, allow 24 hours between coats	Reflective Silver
	Supersol	Solar reflective coating providing protection against solar degradation.	Solvent	50 litre	4-6m <sup>2</sup> per litre	1 - 4 hours	White
	Silvacote	Contract grade, thin bituminous aluminium coating. Light/heat reflective.	Bituminous	25kg, 5kg, 2.5kg	4-6m <sup>2</sup> per kg	approximately 1 hour	Silver
<b>RIW</b>	Solarflect	Solar reflective protection from thermal movement and UV degradation.	Synthetic Resin	5kg, 20kg	6m <sup>2</sup> per kg per coat	4 hours minimum	White, Light Green, Light Grey



## Preparation

Product	Description	Base Material	Size	Coverage	Drying Time	Colours	
<b>Acrypol</b>	Quartzdek	Solution for the renovation of balconies, terraces and walkways. 10 year life expectancy to specification.	Resin and quartz granules	5kg drum	See NOTE*	Touch dry for re-coating 8-16 hrs	Yellow, Light Grey, Black/Silver Grey, Light Grey, Black/Red, Light Grey, Black
	Wet Seal	Epoxy Putty for emergency repair on leaking gutters, pipes, sanitary fittings etc.	Epoxy Putty	57gm tube	Dependent upon application	Hard in 30 minutes Full cure in 60 minutes	White
<b>Laybond</b>	Fungicidal Wash	Pre-treatment for roofs to protect against fungi, moss, lichen etc.	Alkaline	25 litre 5 litres	5m <sup>2</sup> per litre per coat	1 hour first coat, overnight second coat	N/A
	Super Penetration Primer	General purpose high penetration bituminous solution for varied applications.	Solvent	200 litre 25 litre 5 litre 2.5 litre 1 litre	4m <sup>2</sup> per litre	3-6 hours	N/A
	CP Primer	Low viscosity, solvent based solution for priming porous surfaces.	Solvent	25 litre 5 litre	8m <sup>2</sup> per litre	3-6 hours	N/A
	Bituminous Black Paint	Solvent borne, bituminous black paint.	Solvent	200 litre 25 litre 5 litre 2.5 litre 1 litre	6.5m <sup>2</sup> per litre	approx 6 hours	Black

**NOTE\*** On asphalt first coat 0.3-0.5kg per m<sup>2</sup> of resin, then apply granular coat at 0.5kg per m<sup>2</sup>. Third coat is 0.5kg m<sup>2</sup> of resin. Concrete application Apply sealer coat of transparent resin 0.3 - 0.5kg per m<sup>2</sup>. Thinned by 50% with Quartzdek universal thinner. Then apply granular coat at 0.5kg per m<sup>2</sup>. Third coat is transparent resin at 0.5kg per m<sup>2</sup>.

## General Accessories

Product	Description	Base Material	Size	Coverage	Drying Time	Colours	
<b>Laybond</b>	Feltfix	Cold applied, solvent borne bituminous adhesive for bonding roofing felt	Solvent	25 litre 5 litre 2.5 litre 1 litre	1.6m <sup>2</sup> per litre	approximately 24 - 48 hours dependant on weather conditions	N/A



## GRP Flat Roofing System

### Filon

TecnaFlex creates a "floating" flat roof with its unique mobile anchor plate (MAP) fixings and flexible edge trims. Preformed GRP sheets lay directly onto the MAP fixings and trims.

Increased lifespan through control of key factors:

- **Control of moisture vapour** A breathing roof system, which allows water vapour to vent at the edges.
- **Control of movement** The patented MAP system in conjunction with the flexible trims accommodate any thermal or structural movement between the roof and its decking.
- **Control of weathering** A combination of TecnaFlex Topcoat resin and embedded 6mm chippings ensures a long life against UV degradation.

25 Year Guarantee, Fast and Easy to Install

- Cold applied
- Preformed components with active bonding surfaces

#### Technical Data - TecnaFlex GRP Base Sheet

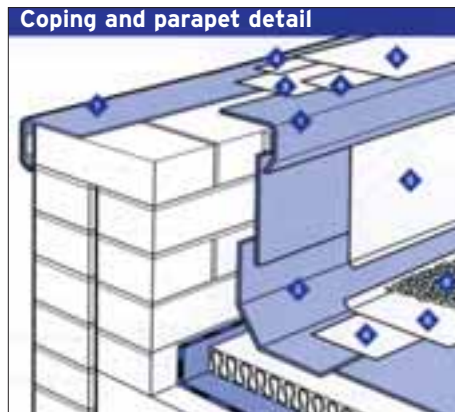
Thickness - 1.4mm nominal

Weight - 2.2kg/m<sup>2</sup>

Fire Grade - AB Class 3 to BS 476 parts 3 and 7

Finish - Opal with integral roughened surface

Manufactured to BS 4154 and ISO 9001; 2000



1. TecnaFlex drip trim
2. TecnaFlex fillet angle trim
3. TecnaFlex sheet
4. TecnaFlex jointing mat
5. TecnaFlex top coat
6. Stone chippings

## Cold Applied Liquid Waterproofing System

### Sealoflex

Sealoflex is a cold applied liquid waterproofing system. The unique reinforced membrane bonds directly to the substrate to form an exceptionally strong and durable finish. The product is ideal for repair, renewal or new-build.

#### Key Benefits

1. UV curing, highly ultra violet and ozone resistant.
2. Highly resistant to salt spray.
3. Tough and flexible.
4. Water based, environmentally friendly and non-hazardous.
5. Excellent chemical resistance properties.
6. In most cases, Sealoflex does not require the removal of existing failed roofing systems.
7. Excellent vapour permeability.
8. Exceptional wind uplift resistance when used as a fully adhered single ply roofing system over concrete and other moisture bearing substrates.
9. Class "A" Fire Rating.
10. Easy to install and cost efficient.

#### Colours available:

White, Pearl Gray, Slate Gray, Charleston Green, Brown, Tinnors Red, Terra Cotta, Charcoal and Beige. Other colors available on request.



## Flat Roof Insulation

The range of insulation products available for flat roofing applications is extensive. Insulation is a complex area and we offer specialist advice to help you through the many regulations and difficulties that can occur.

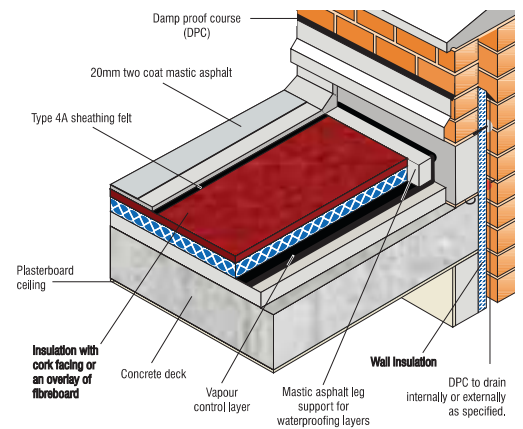
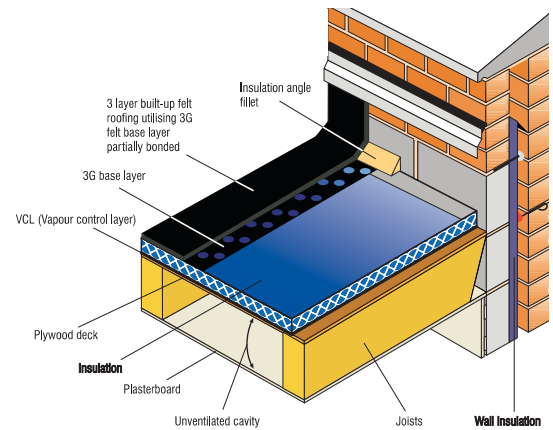
### Applications

Partially bonded, built up between roofing felt

- Can be used on timber, metal and concrete decks.
- Depending on type of insulation boards used, a vapour control layer may be required on top of the deck, underneath the insulation.
- The vapour control layer can be bonded or nailed to the deck. (Check manufacturer's guidelines)
- The insulation boards are either mechanically fixed or bonded through the vapour control layer to the deck.

Fully bonded, built up felt & mastic asphalt

- Can be used on timber, metal and concrete decks.
- A vapour control layer is required beneath the insulation.
- Mastic asphalt should always be laid over an isolating layer of type 4A sheathing felt to BS747. Insulation will require an overlay board of 13mm fibreboard in addition to the 4A sheathing felt, unless the insulation is faced with fibreboard, cork facing or an alternative facing.



### Celotex

Product	Description	Thickness (mm)	Size (m)	Materials
Celotex Energy-Lok EL3	PIR thermal insulation board for use in built up hot applied bituminous, mastic asphalt and single ply applications	30-100mm	600mm x 1200mm, 1200mm x 2400mm	PIR with two autohesively bonded facers - one perforated and one unperforated

### Dow

Product	Description	Thickness (mm)	Size (m)	Materials
Product: Roofmate SL-X	Ideal for inverted roofs. Unaffected by changes in temperature or freeze/thaw cycles.	50mm-180mm	1250mm x 600mm	Styrofoam

Product	Description	Thickness (mm)	Size (m)	Facings	Core
Thermataper TT40	For use with Partially Bonded Built-up Felt Waterproofing.	25 upwards	1.2 x 1.2	Bitumen impregnated glass fibre tissue	CFC/HCFC-free rigid urethane
Thermataper TT42	For use with Fully Bonded Built-up Felt & Mastic Asphalt Waterproofing.	30 upwards	1.2 x 0.6	Upper Facing: 20mm Cork Lower Facing: Glass reinforced perforated cellulose	CFC/HCFC-free rigid urethane
Thermataper TT46 LPC/FM	For use with Mechanically Fixed Single-ply Membrane Waterproofing.	25 upwards	1.2 x 1.2	Foil	CFC/HCFC-free rigid urethane
Thermataper TT47 LPC/FM	For use with Fully Adhered Single-ply Waterproofing Membranes.	25 upwards	1.2 x 1.2	Wet lay coated glass fibre tissue	CFC/HCFC-free rigid urethane
Thermarroof TR21	For use with Partially Bonded Built-up Felt & Mastic Asphalt Roofing.	25-100	1.2 x 0.6	Glass reinforced perforated cellulose	CFC/HCFC-free rigid urethane
Thermarroof TR22	For use with Fully Bonded Built-up Felt & Insulated Balconies Waterproofed with Mastic Asphalt with a Porous Concrete Promenade Tile Overlay.	30-80	1.2 x 0.6	Upper Facings: 20mm Cork Lower Facing: Glass reinforced perforated cellulose	CFC/HCFC-free rigid urethane
Thermarroof TR24	For use with Polymer Modified Mastic Asphalt Roofing.	30-100	1.2 x 0.6	Plain glass fibre Tissue	CFC/HCFC-free rigid urethane
Thermarroof TR26 LPC/FM	For use with Mechanically Fixed Single-ply Roofing.	25-100	2.4 x 1.2	Foil	CFC/HCFC-free rigid urethane
Thermarroof TR27 LPC/FM	For use with Mechanically Fixed & Fully Adhered Single-ply waterproofing membrane.	25-120	2.4 x 1.2	Wet lay coated glass fibre tissue	CFC/HCFC-free rigid urethane
Thermarroof TR31	For use as Composite Roof Decks beneath partially bonded built up felt roofing.	25-90	2.4 x 1.2	Upper Facings: 6mm Plywood Lower Facing: Foil	CFC/HCFC-free rigid urethane



## Knauf

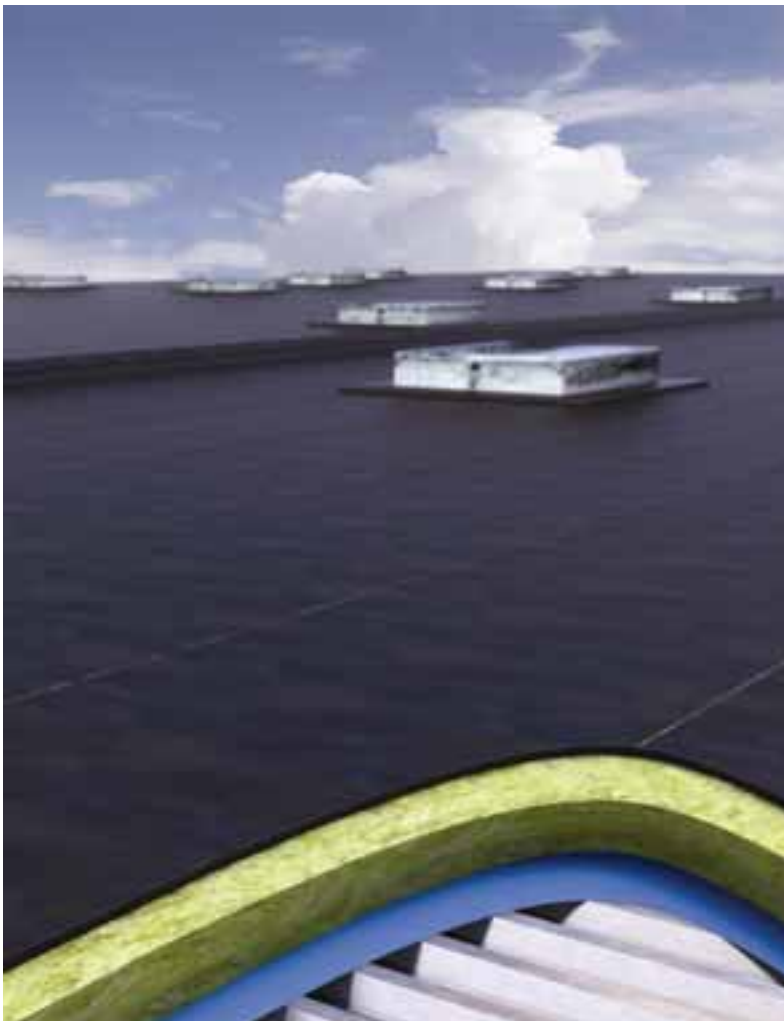
Product	Description	Thickness (mm)	Size (m)	Materials
Roofboard - Standard	Light to occasional maintenance traffic loading.	35-90mm	600mm x 1250mm	100% ozone friendly, extruded polystyrene
Roofboard - Extra	Consistent loading and plant loading, pedestrian traffic loads.	50-90mm	600mm x 1250mm	100% ozone friendly, extruded polystyrene
Roofboard - Super	Very high loading, car parking and heavy traffic loads.	50-100mm	600mm x 1250mm	100% ozone friendly, extruded polystyrene
Rocksilk Krimpack Flat Roof Slab Light	Rock mineral wool slabs for non-access flat roofs. Excellent acoustic and fire protection properties.	140mm	1800 x 600mm	Rock mineral wool.

## Thermal Ceramics

Product	Description	Thickness (mm)	Size (m)	Materials
Sitek Fesco Retrofit Board	For Pour and Roll	13, 15, 20mm	600 x 1200	Expanded Perlite with bitumen top
Sitek Fesco "S"	For Torch on	15 and 20mm	600 x 120	Expanded Perlite

## Vencel Resil

Product	Description	Thickness (mm)	Size (m)	Materials
Jabtherm	For warm-deck flat roof constructions using various built-up felt combinations or mastic-asphalt weatherproofing.	20mm upwards - cut to order.	1200 x 900mm and 600 x 900mm.	Expanded Polystyrene



## Marley Waterproofing

Product	Description	Thickness (mm)	Size (m)	Facings	Core
Insul8 HP	A flat roof board that can accommodate tapered systems	25/15 80/15 85/15	1200 x 600	Glass reinforced cellulose	rigid urethane
Insul8 HP RUF/Cork	As per Insul8 HP/RUF with a cork topping	80/20	1200 x 600	Faced on the underside with glass reinforced cellulose	rigid urethane with a 20mm cork topping
Insul8 HP Phenolic	The Perlite topping allows you to torch the waterproofing membranes.	20/20 80/20 90/20	1200 x 1000	Faced on the underside with glass reinforced cellulose	phenolis with a 20mm bituminised perlite topping

## Rockwool

Product	Description	Thickness (mm)	Size (m)	Facings	Core
Hardrock Roofing Board	Tissue faced and TFA boards	50 - 150	2 x 0.6	Glass tissue	Rockwool
	Plain board	50 - 150	2 x 1.2		
	SPA board	50 - 150	2 x 0.6		
	Cut to falls		2 x 1.2 2 x 0.6 1.2 x 0.66		
DuoRock	Tissue faced and TFA boards	50 - 160	2 x 0.6	Glass tissue	Rockwool
	Plain board	50 - 160	2 x 1.2		
	SPA board	50 - 160	2 x 0.6 2 x 1.2		
	Torch-on board		2 x 0.6 1.2 x 0.66		
	Cut to falls		0.2 x 0.66		



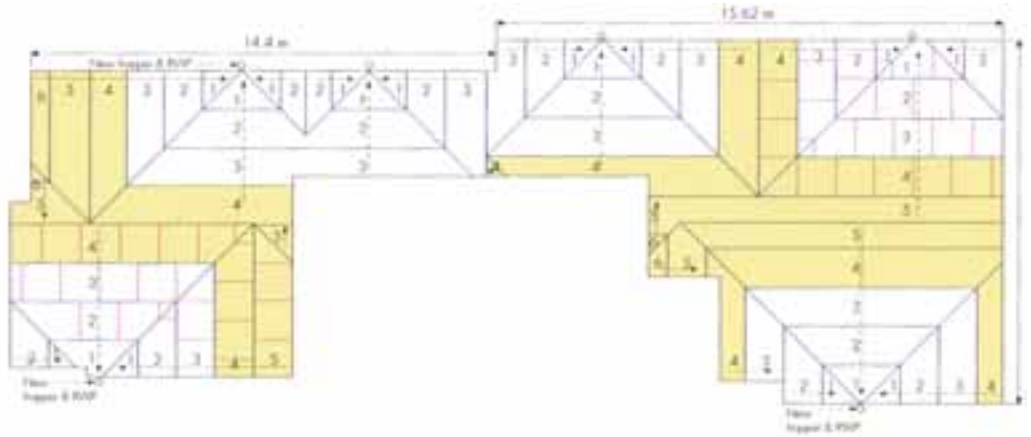
## Woodfibre UK

Product	Thickness (mm)	Size (m)
Woodfibre Board	12, 18, 24	Widths: 600, 610, 1200, 1220 Lengths: 1200, 1220, 2400, 2440
Woodfibre Fillets		48 x 48 x 1220



**The Tapered Roofing Drawing Service**

Roof Shop offer a drawing service that allows existing plans to have insulation products incorporated quickly and effectively. Designs can be supplied in the following way, email, computer disk or on a drawing. Below is a drawing of a typical tapered roof design.



**Product Solutions for Flat Roofing Applications - Domestic and Non-Domestic**

	Partially Bonded Built Up Roofing Felt	*Fully Bonded Built Up Roofing Felt	**Mastic Asphalt	***Single Ply Membrane
Kingspan Thermarroof TR20 zero ODP - Bitumen glass facing	●			
Kingspan Thermarroof TR21 zero ODP - Glass facings/Glass cellulose facings	●	●	●	
Kingspan Thermarroof TR22 zero ODP - Cork finish		●	●	
Kingspan Thermarroof TR23 zero ODP - Woodfibre board finish		●	●	
Kingspan Thermarroof TR24 zero ODP - Glass fibre facings		●	●	
Kingspan Thermarroof TR25 zero ODP - Glass fibre facings		●	●	
Kingspan Thermarroof TR26 LPC/FM zero ODP - Foil facings				●M
Kingspan Thermarroof TR31 zero ODP - Plywood finish	●	●	●	●M
Kingspan Thermarroof TR27 zero ODP - Coated glass fibre facing				●M+B
Kingspan Thermarroof TR27 LPC/FM zero ODP - Wet lay coated glass fibre facings				●M+B
Kingspan Therमतaper zero ODP systems	●	●	●	●M+B
Kingspan Thermapitch TP10 zero ODP				
Rocksilk Flat Roof Slab	●	●	●	●M+B
Rockwool Hardrock Dual Density - Tissue Faced		●	●	●M
Rockwool Hardrock Dual Density SPA				●B
Rockwool DuoRock - Plain	●			●M
Rockwool DuoRock - Tissue Faced		●B		
Rockwool DuoRock SPA				●B

M = Mechanically Fixed Single Ply Membranes. Usually PVC EPDM - Non-Bituminous.

B = Fully Adhered or Bonded Single Ply Membranes - Bituminous. Non-Bituminous and other approved membranes to be used with adhesive.

\* Fully bonded built up roofing felt & mastic asphalt. A 13mm overlay board may be required where the insulation board is unfaced. Check manufacturers' details.

\*\* Mastic asphalt. Will normally require an isolating layer of type 4A sheathing felt.

\*\*\* Single ply membrane. If PVC - a separating layer / fleece may be required between the insulation and PVC membrane. Check manufacturers' details.

## Flat Roof Decking

### Why Use Certified Materials?

If you're using a wood-based panel product structurally, you need to be sure it complies with the relevant Design Standard - BS5268 Part 2. If it doesn't, you may risk liability should any subsequent failure occur.

### What is BS5268-2?

BS5268-2 (Structural Use of Timber) is a design standard that details which sheet materials are suitable for use in structural applications. Simply, any panel product being used in a structural application that is not listed in the standard will fail to meet building regulations.

### What conforms to BS2568-2?

Yes - SmartPly 3 products are listed as suitable for structural use in BS5268 Part 2 (Section 5) and are individually stamped with the appropriate structural grade mark (OSB3). Not only that, SmartPly 3 products have BBA approval, ensuring the product complies fully with the Construction Products Directive (CPD) legislation and are CE marked.

## CE Marking - Your Questions answered

### What is the new legislation that's come into force?

The Construction Products Directive (CPD) became law across the whole of the EU from the 1st of April 2004. It seeks to ensure that all wood based panels used in construction, where the product is for permanent use in regulated building work, are fit for purpose intended. The CPD covers both structural and not structural panel products. Once a manufacturer has proved by test that his product meets the minimum requirements for a particular end use, he is entitled to place a CE mark on the product or the packaging to show that it does. However, consumers should be cautious on two points:

- 1) Because the CPD covers both structural and non-structural panels, the presence of a CE mark on the product does not necessarily show that the panel is suitable for structural use. Consumers should seek the performance information behind the mark to establish whether a panel is suitable for their particular end use. Performance testing under the CPD for structural use requires a level of attestation at 2+ (as defined in BS EN 13986). This means the structural testing is carried out by an official testing authority, approved by the European Commission. Any strength data not backed up by a Notified Body is invalid and the product cannot be used legally for structural use.
- 2) Actually applying the CE mark to the product or the package is not mandatory in the UK although it is in most other European Member States. However, product compliance with the CPD is mandatory in All Member States. Some products might be CPD compliant yet carry no mark.

### How will it effect me?

If challenged, by either local authority Building Control or Trading Standards, you will have to prove that the product you have used is fit for the job you are using it on. If you are found to have used non-compliant boards, you may be required to remove them from site, or prove that they will do the job in accordance with the Building Regulations or, in extreme cases, dismantle part of the structure where the non-compliant boards have been installed. Either way your work may be severely disrupted and may put you conflict with your client. If you refuse to cooperate with regulatory officials or seek to obstruct them in their duties, you may face criminal charges and the court may consider a heavy fine or a custodial sentence.

### So what should I do about it?

From now on ALL panel products used for permanent incorporation into regulated building work must meet the minimum requirements of the CPD and preferably carry a CE mark to show that they do. Additionally, to comply with the Building Regulations, those panels also required to perform a structural function must either conform to BS5268 Part 2 or be tested under BS EN 13986 for structural use to attestation level 2+. You should seek to find products carrying the correct identification; CE mark with 2+ Structural or BBA. For example:-



050-CPD-015 Smartply 04 EN13986 OSB/3 E1 Class 1 EN300 2+ structural 18mm BS5268-2:2002→→  
FSC TT-COC-1572 90% KOMO 32685/02 NBI NR 2148 IAB 02-0093 BBA98/3488/C Shift A 02.03.04→→



## SmartPLY 3 OSB

**SmartPLY OSB3 (Oriented Strand Board\*)** is the ideal solution for flat roof decking applications. Manufactured with oriented wood strands coated with high performance resins and compressed under high temperature, the result is a load-bearing panel that achieves a reliable distribution of strength, stiffness and spanning capacity along and across the board.

### Dimensions and Thicknesses

Thickness (mm)	Length (mm)	Width (mm)	Type	Boards /pack
11	2440/2400	1220/1200	Square Edge	82
15	2440/2400	1220/1200	Square Edge	60
18	2440/2400	1220/1200	Square Edge	50
18	2400	600	Tongue & Groove 4	100
18	2397	1220	Tongue & Groove 2	50

### Specification for flat roof\*\* construction

Board Thickness (mm)	11***	15	18
Maximum Span mm (joist rafter centres)	450	450	610
Nail Centres (edges) mm	150	150	150
Nail Centres (intermediate) mm	300	300	300
Minimum nail edge distance mm	10	10	10
Max bearing support mm	18	18	18

\* Not to be confused with OSB2, which is unsuitable for roof applications

\*\* Suitable for flat roofing construction where the insulation occurs above the supporting deck and the thermal design eliminates the possibility of condensation.

\*\*\* Suitable for small buildings (eg garages) without access except for maintenance.



## Structurally Rated Plywood

A lightweight and economical plywood approved for structural use on roofs.

### Dimensions and Thicknesses

Thickness (mm)	Length (mm)	Width (mm)	Type	Boards /pack
9	2440 or 2500	1220 or 1250	Square Edge	80
12	2440 or 2500	1220 or 1250	Square Edge	60
15	2440 or 2500	1220 or 1250	Square Edge	50
18	2440 or 2500	1220 or 1250	Square Edge	40
21	2440 or 2500	1220 or 1250	Square Edge	35
24	2440 or 2500	1220 or 1250	Square Edge	30

Tongue and groove available on request.

A lightweight and economical plywood approved for structural use on roofs.

**Size tolerances:**  
 <1000 mm +/- 1 mm  
 1000-2000 mm +/- 2 mm

**Squareness tolerance:**  
 +/- 1 mm / 1000 mm

>2000 mm +/- 3 mm

### Other information

The panel can have dimensional changes due to changes in the air humidity. Please leave gaps between panels in the installation. The boards can be worked with ordinary hand tools.

## Bitumen

Used for fixing roofing membranes in built-up roofing specifications, Bitumen adheres bituminous roofing to itself, structural decks or a variety of insulation materials. When using bitumen we recommend that you

follow the requirements of BS 8217: 2005 Code of practice for reinforced bitumen membranes for flat and sloping roofs.

	Permanite Engineered Roofing Systems	Total Bitumen
Product:	Easmelt 95/25	95/25
Description:	General purpose oxidised bitumen or bonding.	General purpose oxidised bitumen or bonding.
Container Size:	25 kg	20kg, 40kg
Coverage (m <sup>2</sup> )	25kg = 15m <sup>2</sup>	40 kg = 25m <sup>2</sup>
Product:	115/15	115/15
Description:	Is the hardest of the grades of bitumen commonly used for bonding roofing felt. Also used as a general purpose bonding bitumen for roofs with a 10° pitch.	Is the hardest of the grades of bitumen commonly used for bonding roofing felt. Also used as a general purpose bonding bitumen for roofs with over a 10° pitch.
Container Size:	40kg	20kg, 40kg
Coverage (m <sup>2</sup> )	40kg = 25m <sup>2</sup>	40kg = 25m <sup>2</sup>
Product:	105/35	105/35
Description:	Most commonly used by manufacturers as coating bitumen for pour and roll roofing. It is more pliable than 95/25. It remains flexible in cold weather.	Most commonly used by manufacturers as coating bitumen for pour and roll roofing. It is more pliable than 95/25. It remains flexible in cold weather.
Container Size:	40kg	20kg, 40kg
Coverage (m <sup>2</sup> )	40kg = 25m <sup>2</sup>	40kg = 25m <sup>2</sup>
Product:	85/25	85/25
Description:	General purpose bitumen, often specified by local authorities.	General purpose bitumen, often specified by local authorities.
Container Size:	40kg	40kg
Coverage (m <sup>2</sup> )	40kg = 25m <sup>2</sup>	40kg = 25m <sup>2</sup>

Also available: Bitumen Boilers and Primers.

## Gas Products

Propane gas is available in a wide range of sizes to suit all types of roofing application. We can advise on the regulations and recommendations regarding the use, storage, handling and transportation of gas products.

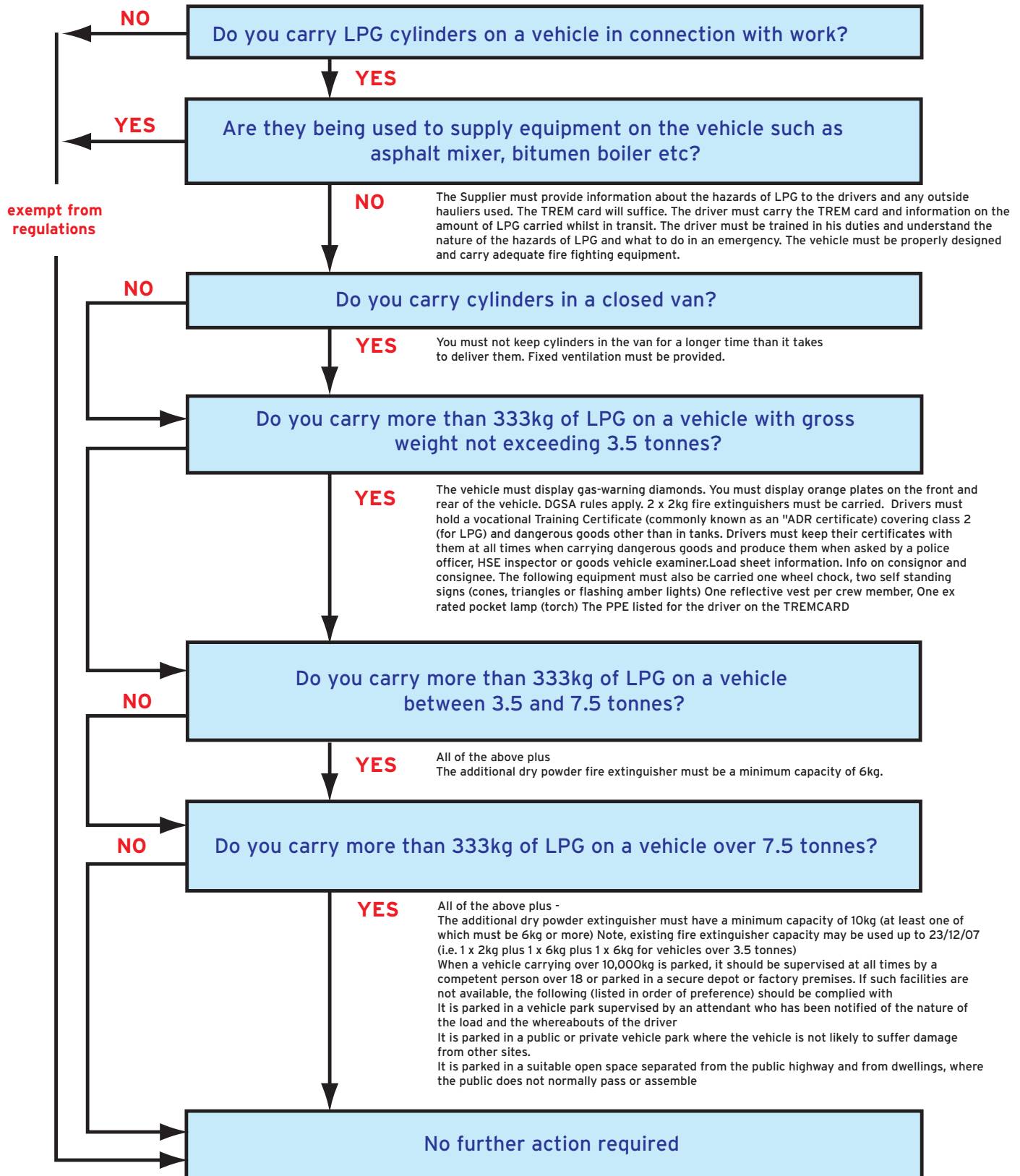
### Flogas

	Butane	Propane	
Size:	4.5kg	3.9kg	9kg
Tare Weight:	6.2kg (typical)	6.2kg (typical)	9.8kg (typical)
Height:	340mm (approx)	340mm (approx)	460mm (approx)
Diameter:	240mm (approx)	240mm (approx)	310mm (approx)
Recommended Offtake:	16,000 BTU/hr	25,000 BTU/hr	50,000 BTU/hr
Size:	7kg	11kg	11kg (Patio Gas)
Tare Weight:	8.3kg (typical)	13.2kg (typical)	13.2kg (typical)
Height:	495mm (approx)	560mm (approx)	560mm (approx)
Diameter:	256mm (approx)	310mm (approx)	310mm (approx)
Recommended Offtake:	22,000 BTU/hr	50,000 BTU/hr	50,000 BTU/hr
Size:	13kg	19kg	18kg (FLT)
Tare Weight:	13.2kg (typical)	18 (typical)	18kg (typical)
Height:	560mm (approx)	810mm (approx)	810mm (approx)
Diameter:	310mm (approx)	315mm (approx)	315mm (approx)
Recommended Offtake:	32,000 BTU/hr	63,000 BTU/hr	63,000 BTU/hr
Size:		47kg	
Tare Weight:		34kg (typical)	
Height:		1290mm (approx)	
Diameter:		375mm (approx)	
Recommended Offtake:		113,000 BTU/hr	



We also stock seasonal items such as Patio Heaters and BBQs.

## Guide to transportation of LPG cylinders



### Returns Policy

Please call your local branch for details of their gas cylinder returns policy.

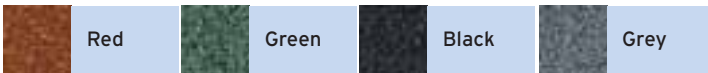
## Roof Paving and Promenade Tiles

Promenade tiles provide the perfect finish for flat roof applications likely to take a regular degree of foot traffic such as patio and garden areas.

### Rubbertech Step Tile - Rubber granulate slabs

Product:	Size (mm)	Coverage per m <sup>2</sup>	Weight (kg per m <sup>2</sup> )	Usable on asphalt?	Usable on felt?	Usable on inverted roofs?	Colours
Step Tile	500 x 500 x 30 nominal	4	22	Yes	Yes	Yes	Red, Green, Black, Grey Other Colours Special Order

#### Colour Chart



### Slate Systems - GRC (Glass reinforced composite) Tiles

Product:	Size (mm)	Coverage per m <sup>2</sup>	Weight (kg per m <sup>2</sup> )	Colours:
Aarondec	300 x 300 x 12 nominal	11	24	22 colours in checkerplate, striated and diamond finishes
Roman Porous	250 x 250 x 25	16	52	Buff, Ivory, Green, Terracotta, Red, Charcoal, Grey
Imperial	300 x 300 x 25 nominal	11	24	Quarry Red Aged, Charcoal, Grey, Quarry Red, Terracotta, Terracotta Aged, Champagne, Buff
Tiletech	250 x 250 x 25	16	48	Buff, Charcoal, Green, White, Grey, Red, Terracotta
Grantile	300 x 300 x 0.5	11	8 with SBS infill, 5 without	Stone, White, Grey

All tiles are suitable for asphalt, felt and inverted roofs.

#### Colour Chart - Aarondec

Checkplate Charcoal	Checkplate Grey	Checkplate Green	Checkplate Red	Checkplate Blue
Checkplate Terracotta	Aarondec Woodgrain	Striated Blue	Striated Buff	Striated Charcoal
Striated Green	Striated Grey	Striated Red	Striated Terracotta	Diamond Cut Blue
Diamond Cut Buff	Diamond Cut Green	Diamond Cut Red	Diamond Cut Terracotta	Diamond Cut Grey
Diamond Cut White	Diamond Cut Charcoal			

#### Colour Chart - Imperial

Quarry Red Aged	Charcoal	Grey	Quarry Red
Terracotta	Terracotta Aged	Champagne	Buff

### Colour Chart - Tiletech



### Colour Chart - Roman Porous

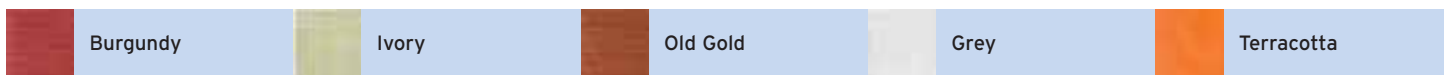


### Spartan Tiles - Concrete

Product:	Size (mm)	Coverage per m <sup>2</sup>	Weight (kg per m <sup>2</sup> )	Usable on asphalt?	Usable on felt?	Usable on inverted roofs?	Colours:
Available in Concrete or Glascrete (80% recycled glass). They have the same specifications and performance.	305 x 305 x 25	10.764	52	Yes	Yes	No	Burgundy, Ivory, Old Gold, Grey, Terracotta, made to order
	305 x 305 x 32	10.764	64	Yes	Yes	No	
	305 x 305 x 38	10.764	74	Yes	Yes	Yes	
	305 x 305 x 50	10.764	103	Yes	Yes	Yes	
	457 x 457 x 38	4.8	74	Yes	Yes	No	
	305 x 305 x 50	10.764	103	Yes	Yes	Yes	
	Hexagonal x 32	6.33	64	Yes	Yes	No	
	Hexagonal x 38	6.33	64	Yes	Yes	No	
	Hexagonal x 50	6.33	103	Yes	Yes	Yes	



### Colour Chart



### SPV Road Carpet

- Ready to use in a matter of hours.
- Weights from 4kg/metres squared.
- Expands & contracts without cracking.
- Resistance to rupture, cold, heat and chemicals.
- Anti Slip and waterproof.
- Available in a wide range of colours.



# Roof Paving and Promenade Tiles continued

## Wallbarn Paving Support Pads

Wallbarn paving support pads offer a fast, clean, easy way to lay deck paving without the need to bed slabs in mortar.

- No mechanical fixing is required.
- Effective drainage system.
- Clear and uniform separation between the slabs.
- Individual slabs can be removed and replaced without disrupting the area.

Product	Description	Height (mm)	Diameter (mm)	Lug Thickness (mm)
Rubber support pad	Tough, flexible rubber compound. Good sound and vibration insulator. A soft profile means that they can be laid onto delicate surfaces without the risk of 'digging in'.	9	120	5
Plastic stackable support pad	Lightweight, and can be stacked on top of each other, where a higher clearance is required or the deck is not level. Snap into halves or quarters to pave around corners and details.	17	150	5
Plastic adjustable support pad	Designed to rotate at the head. Height can be adjusted, making them ideal for paving onto roofs built to falls. Their large height range helps create a truly flat surface on large areas. Cables and pipes can be laid beneath the slabs easily.	25	208	2
		35	208	2
		35-50	208	2
		50-70	208	2
		65-100	208	2
		95-130	208	2
		125-160	208	2
Plastic levelling shim Cellulose levelling shim	Levelling Shims allow for fine adjustment.	2.5	150	
		1	120	



## Zoontjens Dreen Slabs - Concrete

Size (mm)	Fracture (kn)	Weight per tile (kg)	Weight (kg/m <sup>2</sup> )	Slabs per package
300 x 300 x 35	7	5.9	65	100
300 x 300 x 45	11	7.1	78	80
300 x 300 x 60	21	10.5	116	60
400 x 600 x 60	11	26.5	110	28
500 x 500 x 60	13	27.5	110	28
600 x 600 x 60	12	40.5	113	28

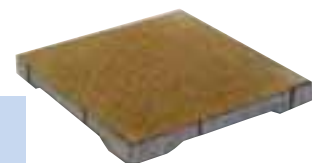
### Applications

warm roof construction; roof covering over the insulating material	On a bitumen disc with a Comfix element
pvc roof covering	On a bitumen disc with a Comfix element
inverted roof construction; roof covering below the insulating material	On a bitumen disc with a Comfix element



## Colour Chart

	Autumn Orange		Faded Sand		Granite White		Helios
	Jet Black		Marble White		Mixed Grey		Ruby Red
	Rustic Brown		Sparklet Red		Spring Green		Tropical Yellow



## Flat Roofing Accessories

We stock a wide range of flat roofing accessories including lead, aggregates, trim and flat roof domes to provide a neat, professional finish.

### Lead



At Roof Shop we stock quality rolled lead to BS 12588:99 supplied by Associated Lead Mills (ALM), British Lead Mills (BLM), Jamestown Metals and Royston Lead. We are able to source lower grade cast lead if required, however, we will always recommend that you use rolled lead that conforms to British Standard regulations (Cast lead doesn't conform to BS 12588:99).

	Code 3	Code 4	Code 5	Code 6	Code 7	Code 8
Thickness (mm)	1.32	1.80	2.24	2.65	3.15	3.55
Weight Kg/m <sup>2</sup>	14.97	20.41	25.40	30.05	35.72	40.26
Colour Code	Green	Blue	Red	Black	White	Orange

Sizing Guidelines for Good Practice		Code 3	Code 4	Code 5	Code 6	Code 7	Code 8
Recommended Approximate Maximum sizes of individual pieces of lead sheet	Length (mm)	100	1500	1500	2250	2500	3000
	Width (mm)	-	500	600	675	675	700
Application	Soakers	Yes	Yes	No	No	No	No
	Flashings	No	Yes	Yes	No	No	No
	Parapet Gutters	No	No	Yes	Yes	Yes	Yes
	Cladding	No	Yes	Yes	No	No	No
	Weatherings	No	Yes	Yes	Yes	No	No
	Roofing	No	No	Yes	Yes	Yes	Yes

Guide to Lead Flashing Weights:		Code 3		Code 4		Code 5	
Weight per m <sup>2</sup>		15.0		20.41		25.40	
Nominal Thickness		1.32		1.80		2.24	
Widths		3m/kg	6m/kg	3m/kg	6m/kg	3m/kg	6m/kg
mm	Nearest Imperial						
150	6"	7.0	13.0	9.0	18.0	11.0	23.0
180	7"	8.0	16.0	11.0	22.0	14.0	27.0
210	8"	9.0	19.0	13.0	26.0	16.0	32.0
240	9"	11.0	22.0	15.0	29.0	18.0	37.0
300	12"	13.0	27.0	18.0	37.0	23.0	46.0
360	14"	16.0	32.0	22.0	44.0	27.0	55.0
390	15"	18.0	35.0	24.0	48.0	30.0	59.0
420	16"	19.0	38.0	26.0	51.0	32.0	64.0
450	18"	20.0	40.0	28.0	55.0	34.0	69.0
510	20"	23.0	46.0	31.0	62.0	39.0	78.0
600	24"	27.0	54.0	37.0	73.0	46.0	91.0
760	2'6"	34.0	68.0	47.0	93.0	58.0	116.0
800	-	36.0	72.0	49.0	98.0	61.0	122.0
900	3'0"	40.0	81.0	55.0	110.0	69.0	137.0
1000	-	45.0	90.0	61.0	122.0	76.0	152.0
1220	4'0"	55.0	110.0	75.0	149.0	93.0	186.0
1500	5'0"	67.0	135.0	92.0	184.0	114.0	229.0
2440	8'0"	-	-	149.0	299.0	186.0	372.0



For tips on good lead work see page 67.

## Flat Roof Domes

They provide the ideal solution when conventional windows and roof windows cannot provide adequate daylight. Roof Domes are a good way of meeting the natural daylight requirements laid down in Building Regulations Part L and J.

Roof Domes are installed using pre-formed flashings, or upstands, which combine with existing roof coverings.

### Cox Building Products

Product	Description	Sizes (mm)	Glazing	Accessories
The 2000 System	Square or rectangular dome, or pyramid profile	600 x 600, 750 x 750, 900 x 600, 900 x 750 <sup>^</sup> , 900 x 900 <sup>^</sup> , 1050 x 1050, 1200 x 600, 1200 x 900 <sup>^</sup> , 1200 x 1200, 1500 x 1050 <sup>*</sup> , 1500 x 1500, 1800 x 1200, 1800 x 1800	Double skin enhanced UV protected polycarbonate or cell cast acrylic	Pyrovent, ventilator units, Access Hatches
The Mark 5 System	A Selection of upstands and kerb adaptors for fitting to many different roofing systems are available	600 x 600, 750 x 750, 900 x 600, 900 x 750 <sup>*</sup> , 900 x 900, 1050 x 1050, 1200 x 600, 1200 x 900, 1200 x 1200, 1500 x 1050 <sup>*</sup> , 1500 x 1500, 1800 x 1200, 1800 x 1800, 2400 x 1200 <sup>*</sup>	Single or double skin enhanced UV protected polycarbonate and cell cast acrylic	Ventilator Units, Matrix Gutter System
The TPX System	The range offers two upstand heights (175mm and 270mm) produced from galvanised flexible polyester coated steel finished in white	<b>Square Tops:</b> 600 x 600, 750 x 750, 900 x 900 <sup>^</sup> , 1050 x 1050, 1200 x 1200 <sup>^</sup> , 1500 x 1500 <b>Rectangular Tops:</b> 600 x 900, 600 x 1200, 600 x 1800, 750 x 900 <sup>^</sup> , 900 x 1200 <sup>^</sup> , 900 x 1800, 1050 x 1500, 1200 x 1800, 1200 x 2400 <b>Circular Tops (diameter):</b> 600, 750, 900, 1050, 1200, 1350, 1500, 1800	Single or double skin enhanced UV protected polycarbonate and cell cast acrylic	Access Hatches
The Trade Range System	A high quality product in a limited range of sizes, meeting the basic needs without sacrificing material specification	600 x 600, 750 x 750, 900 x 900, 1200 x 600, 1200 x 900, 1050 x 1050, 1200 x 1200	Double skin UV enhanced polycarbonate glazing - long lasting and highly durable	Hinged or fixed versions. Electronically operated or manual.
The Galaxy System	Offers a much larger variation of dimension between the outside finished kerb and the inner face of the vertical leg and the moulding. Therefore many more existing rooflights can be replaced without the need for a kerb adaptor.	600 x 600, 750 x 750, 900 x 900, 1050 x 1050, 1200 x 1200, 1500 x 1500, 1800 x 1800, 600 x 900, 600 x 1200, 600 x 1500, 600 x 1800, 750 x 900, 900 x 1800, 1050 x 1500, 900 x 1200, 1200 x 1500, 1200 x 1800, 1200 x 2400	Single or double glazed	Galaxy Kerb Adaptor

\* Domes Only, ^ Pyrovent and Access Hatches



## Ubbink

Product	Description	Sizes (mm)	Glazing	Accessories
Celeste Range	The range has two upstand heights (150mm & 300mm) made in GRP or PVC.	<p><b>Square:</b> (Roof Openings 150mm upstand) 650 x 650, 750 x 750, 850 x 850, 950 x 950, 1000 x 1000, 1050 x 1050, 1250 x 1250, 1450 x 1450</p> <p><b>Square:</b> (Roof Openings 300mm upstand) 600 x 600, 700 x 700, 800 x 800, 900 x 900, 1000 x 1000, 1100 x 1100, 1200 x 1200, 1400 x 1400</p> <p><b>Rectangular:</b> (Roof Openings 150mm upstand) 650 x 950, 650 x 1250, 750 x 1250, 950 x 1250, 1050 x 1550, 1050 x 2050, 1250 x 1550, 1250 x 1850, 1250 x 2250, 1250 x 2450</p> <p><b>Rectangular:</b> (Roof Openings 300mm upstand) 600 x 900, 600 x 1200, 700 x 1200, 900 x 1200, 1000 x 1500, 1000 x 2000, 1200 x 1500, 1200 x 1800, 1200 x 2200, 1200 x 2400</p> <p><b>Circular: (Dia)</b> 400, 600, 700, 800, 900, 1000, 1300, 1600, 1800, 2000</p>	Single, Double, Triple skin in UV Polycarbonate - Clear, Opal, diffused or bronze	Sliding Access Dome, Hinged, manual or mechanical operation

## Velux

Product	Description	Sizes (mm)	Glazing	Accessories
Flat Roof System	Incorporates the GGL centre-pivot roof window and insulated kerb unit. Front and back framing is splayed to maximise the amount of light. Manual or electrical version available. Ideal for domestic/commercial applications where maximum amount of daylight and ventilation is required.	C04 (550 x 980) M04 (780 x 980) S06 (1140 x 1180)	PROTEC-STAR multi-function glazing: 6.4mm laminated inner pane/14mm gas cavity/4mm toughened low-e outer pane	Blinds, shutters and awnings Other types of roof windows e.g.GGU, GHL, GPL or GPU can be used as an alternative to GGL



## Tubular Skylights

Tubular skylights allow additional natural light to enter rooms that would not be possible with traditional skylights. They can be fitted in flat or pitched roof applications.

### Cox Building Products: Suntube

Diameter: 240mm

Material: Highly reflective silver technology in the light tube (Silverlux specular silver).

Performance: Up to 50% more light than similar products.

**Pack contents:**

- 3 x 600mm silver lux tubes
- UV stabilised polycarbonate dome
- Variable pitch adaptor
- Flashing to suit concrete, terracotta, metal deck, slate or flat roofs.
- Ceiling ring and Luxmaster Décor lens
- Angle adaptor

### Ubbink: Solatube

Diameter: 300mm 350mm 530mm

Material: Spectralight Infinity 99.3% reflective film

**Pack contents:**



- Polycarbonate roof dome
- Top 0 to 30 adjustable angle with dome ring
- Bottom 0 to 30 degree adjustable angle with ceiling ring
- Condensation filter seal
- Diffuser strips
- Dome Spacers
- Aluminium tape
- Ceiling ring zip ties
- Expansion joint seal
- Fixings & fasteners
- Installation Instructions



## Flat Roof Outlets

Flat roof outlets are a natural choice when considering roof drainage in commercial, domestic and industrial applications: they are easy to install and compatible

with most types of roofing material - including hot asphalt, bituminous felt and PVCu membranes.

	Hunter Rainwater Systems	Klober	WP Metals
Product:	Spigot Tail Roof Outlet	Roof Outlets	Roof Outlets
Description:	For Commercial or Domestic applications. Suitable for use with hot asphalt, bituminous felt and PVC membranes. Simple to install.	High Impact UV stable uPVC outlets for use with bituminous felts and uPVC membranes.	Versatile synthetic rubber roof outlets for use with torch on roofing felts.
Sizes:	82mm, 110mm, 160mm	70mm, 100mm, 125mm	240sq top x 240 x 80 tube 310sq top x 240 x 80 tube 325sq top x 240 x 100 tube
Colours:	Grey	Black	N/A
Product:	Roof Outlet Solv. Skt. Tail		
Description:	For commercial or domestic applications. Suitable for use with hot asphalt, bituminous felt and PVC membranes. Simple to install.		
Sizes:	110mm		
Colours:	Grey		
Product:	Spigot Tail Box Gutter Outlet		
Description:	For use in Lead, Zinc or Felt box gutters. Simple to install.		
Sizes:	82mm		
Colours:	Grey		
Product:	Balcony Outlet		
Description:	For use with hot asphalt. Semi circular with rear upstand to prevent overspill to wall. Heavy duty grating.		
Sizes:	82mm, 110mm		
Colours:	Grey		

## Breather Vents

Flat roofing breather vents and soil/mechanical extract terminals are available for cold or warm roof applications.

	Klober	WP Metals	Whitesales
Product:	Breather vents	Brown T Vent	T-Pipe Outlet
Description:	High Impact UV stable uPVC breather vents for use with bituminous felts and uPVC membranes.	Manufactured in polypropylene, complete with detachable cap.	Comprehensive range of drainage outlets suitable for "built up felt", mastic asphalt and single ply applications.
Sizes:	70mm, 100mm, 125mm	Height 175mm, base 225mm Aperture 46mm	50 - 150mm diameter
Colours:	Black	Brown	Black, grey
Ventilation:		Position no more than 5m apart	N/A
Product:	Soil/mechanical extraction	Extra Aqua Vent	T Sleeve
Description:	High Impact UV stable uPVC soil/mechanical extraction terminals for use with bituminous felts and uPVC membranes.	Polypropylene Vent	Pipe sleeves for flat roof penetrations
Sizes:	70mm, 100mm, 125mm	Height 197mm, base 267mm, aperture at base 184mm	35-125mm diameter
Colours:		Grey Base, white dome cover	Black, grey
Ventilation:		Can ventilate up to 36m <sup>2</sup>	N/A
Product:		Aluminium A. Vent	T-Vents
Description:		Spun aluminium vent.	Vents for "built up", mastic and single ply
Sizes:		Height 180mm, base 240mm, aperture 165mm	
Colours:		Aluminium	Black, grey
Ventilation:		Can ventilate up to 20m <sup>2</sup>	Depends on the materials used.
Product:		Aluminium Mega-Vent	
Description:		Spun aluminium vent.	
Sizes:		Height 350mm, base 240mm, aperture at base 165mm	
Colours:		Aluminium	
Ventilation:		Depends upon the materials used in the construction of the roof.	

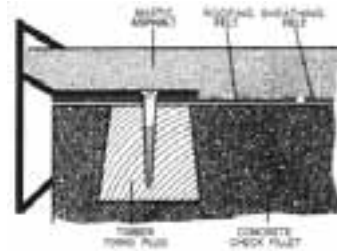
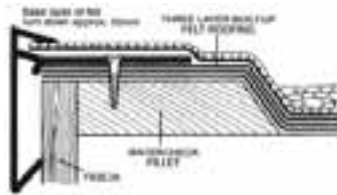
Accessories:

- Leaf and Gravel Guards • Through Wall Roof Drains • Pipe Collars

## Flat Roofing Trim

We stock a range of trims designed to give a professional finish to built up felt and mastic asphalt flat roofs.

WP Metals		Whitesales
Product: Glasstrim	Glass, reinforced polyester roof edge trim, designed to provide a weatherproof, decorative finish.	EM-Trim
Description:		GRP roofedge trim, providing neat, colourfast edge detail.
Sizes:	2.5m lengths, 75mm internal jointing sleeve, comprehensive range of sizes	Comprehensive range of sizes
Colours:	Black, white	Black, white, grey
Product: V-Trim GRP Asphalt Trim		
Description:	A specialized GRP trim for mastic asphalt.	
Sizes:	2.5m lengths, 75mm internal jointing sleeve. Two sizes available.	
Colours:	Black, white	
Product: Nutrim Aluminium Trim		T-Trim
Description:	Aluminium trims for built up felt and asphalt waterproofing	Aluminium roof edge trim, providing neat, consistent edge detail.
Sizes:	2.5m lengths, 75mm internal jointing sleeve. Complete range of sizes	Comprehensive range for "built up felt" and mastic asphalt applications
Colours:	Mill finish	Mill finished and powder coated to special order.
Product: Termination Bars		EM-Bar
Description:	Aluminium and GRP. Provide a strong, clean finish to wall flashings and skirtings for felt and asphalt	GRP termination bar for wall abutments and upstands.
Sizes:	2.5m lengths.	Choice of two profiles
Colours:	Aluminium, black	Black, white, grey



## Aggregates

We have aggregates in different materials, sizes, colours and packs giving you a solution for every application. We even have a range of flooring products and accessories -

ask your local branch for details.

Product	Description	Size	Packaging
White Limestone	Roofing Chippings	Available in 3mm, 6mm, 10mm, 14mm, 20mm	25kg & Bulk Bags and Loose
Green Granite	Roofing Chippings	Available in 3mm, 6mm, 10mm, 14mm	25kg & Bulk Bags and Loose
Grey Granite	Roofing Chippings	Available in 3mm, 6mm, 10mm	25kg & Bulk Bags and Loose
Natural Gravel	Roofing Ballast	Available in 20mm, 20-40mm	25kg & Bulk Bags and Loose
Rubbing Sand	Achieves a smooth finish on Asphalt applications		25kg & Bulk Bags
White Spar	Chippings	Available in 3-8mm, 10mm	25kg & Bulk Bags and Loose

## Colour Chart - Aggregates

