


# INSULATION & DAMP PROOFING



MANUFACTURERS  
CATALOGUE

**100% BLACK OWNED**

www.**Gundle**<sup>®</sup>.co.za  
PLASTICS GROUP

WWW.GUNDLEAPI.CO.ZA



# INTRODUCING THE GUNDLE API RANGE OF LAMINATED ROOFING PRODUCTS

**ISO 9001:2015 ACCREDITED**

## INSULATION MEMBRANES FOR YOUR ROOF

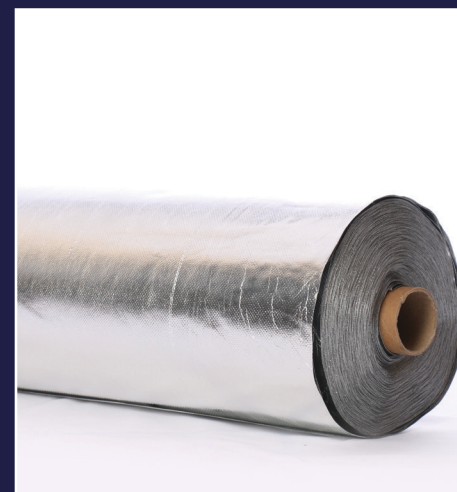
The latest addition to the Gundle range of products is the Durafoil insulation membranes. These membranes are all aluminium foil laminates and conform to the SABS 1381-4 specification covering material for the thermal insulation of buildings, as indicated.

The Durafoil range consists of various laminates, and each product has been specially formulated for a specific insulation application - be it industrial (eg. warehouses, workshops, factories, etc) or domestic.

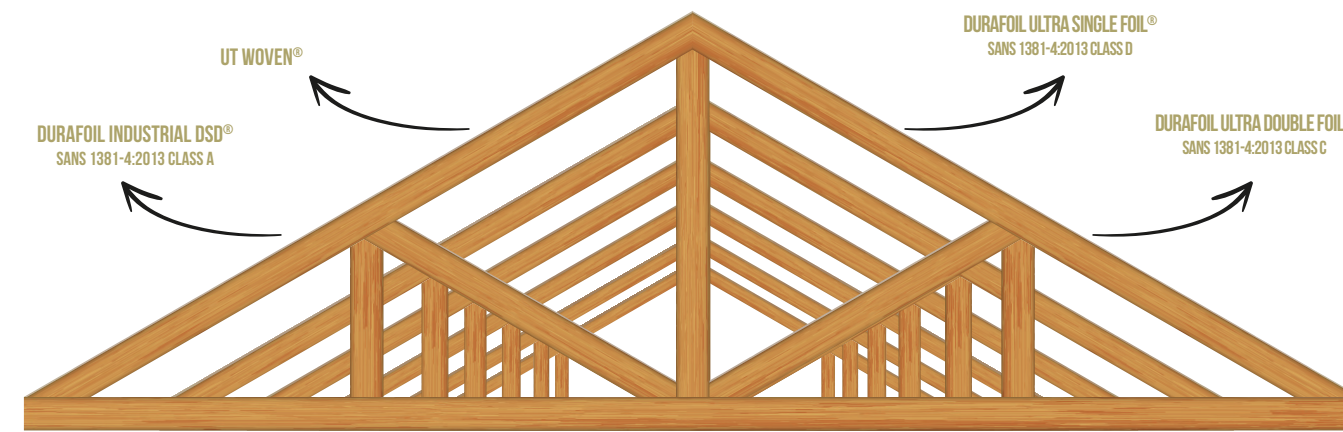
## GUNDLE QUALITY

All Gundle API products comply with the national building regulations and are accepted by all municipalities and government departments.

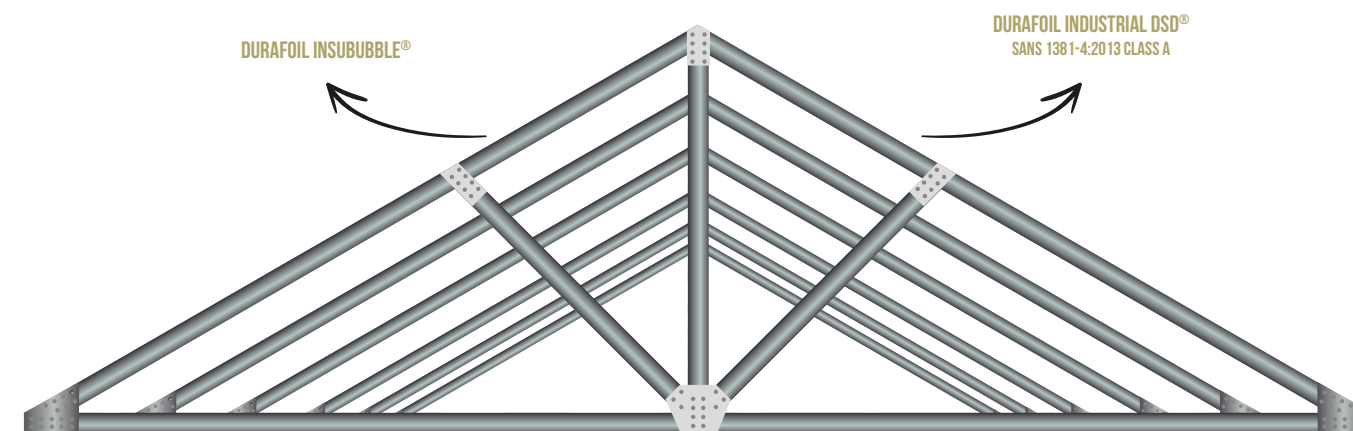
Gundle API has one of the most sophisticated and well equipped test laboratories in S.A. to ensure conformance with SABS and ISO standards. The quality of Gundle products has become a benchmark in the industry.







## TIMBER HOUSE STRUCTURE



## STEEL FACTORY STRUCTURE

## GUNDLE API CERTIFIED - ROOFING PRODUCTS



DURAFOIL INSUBUBBLE®

DURAFOIL INDUSTRIAL DSD®  
SANS 1381-4:2013 CLASS A

UT WOVEN®

DURAFOIL ULTRA SINGLE FOIL®  
SANS 1381-4:2013 CLASS D

DURAFOIL ULTRA DOUBLE FOIL®  
SANS 1381-4:2013 CLASS C



# DURAFOIL INSUBUBBLE®

Durafoil Insububble is a four layer laminate consisting of:

- 1) the foil layer for reflective insulation
- 2) a laminating layer
- 3) fibreglass scrim
- 4) the spunbond layer for stability, strength and thermal insulation and
- 5) the polyethylene bubble layer for additional insulation.

The product is aesthetically pleasing and attractive when applied under metal roofs. Insububble can be used under domestic or industrial roofs. It is flame retardant, tested in terms of SANS 10177 the product has been classified as class B/B1/2/H which means it has a superior flame retardancy and can be used in any structure with a B1 rating with sprinklers. The product has been tested with sprinklers.

Insububble has a strong tear resistance and will not expand when in contact with changing roof temperatures.



## GAP ANALYSIS

- For use under metal roofs
- The size of the bubble has no effect on the insulation value
- Installed foil side up and aesthetically pleasing white bubble giving a ceiling effect facing down

PROPERTY	UNIT	TYPICAL VALUE
Class	-	D
Form	-	Roll
Length	-	As per label
Width	mm	1 250
Thickness	µm	1.56
Mass per Unit Area	gm <sup>2</sup>	360 ± 10%
Resistance to delamination		
a) Dry at elevated ambient temperatures	-	No delamination
b) Wet at elevated ambient temperatures	-	No delamination
c) Resistance to corrosion	-	No corrosion
Shrinkage		
a) Machine direction	%	< 1.5
b) Cross machine direction	%	< 1.5
Emissivity	-	≤ 0.05
Water vapour permeance:		
Reflective surface facing dessicant	g/(s.MN)	≤ 0.002
Fire Performance:	Class	B/B1/2/H with sprinklers
Tensile breaking strength		
a) Machine direction	kN/m	> 2.77
b) Cross machine direction	kN/m	> 3.05
Bursting strength	kPa	≥ 366
Puncture resistance	mJ	≥ 2984.4
Edge tear resistance		
a) Machine direction	N	≥ 225
b) Cross machine direction	N	≥ 171
System thermal resistance (two air gaps - heat flow down)	(m2.K)/W	> 0.9







# DURAFOIL ULTRA® (SINGLE FOIL)

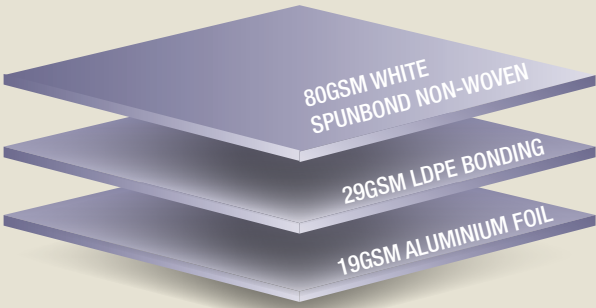
SANS 1381-4: 2013 CLASS D

Durafoil Ultra Single Foil has been developed specifically for use under roof tiles and is certified under SANS 1381-4 Class D. The aluminium foil layer will not radiate or emit heat down-wards and the product is applied with the aluminium surface facing down towards the interior of the building. The spunbond membrane gives the product substantial strength and stability.

Durafoil Ultra Single foil does not have foil on the section of the membrane which acts as the overlap, this reduces the cost of the membrane as the section where the membrane overlaps the layer underneath makes the foil surface ineffective as it needs an airspace to function as an insulator.

Other than insulate the roofspace the membrane will reduce draughts and dust penetration into the roof area. The membrane is also designed to prevent moisture from damp air from condensing on the ceiling boards and other vulnerable points in the building fabric.

Most home loan institutions insist on the use of an under-tile membrane where the roof pitch is less than 26 degrees or more than 45 degrees and also in exposed coastal areas as the membrane will prevent strong winds from ripping off roof tiles.



PROPERTY	UNIT	TYPICAL VALUE
Class	-	D
Form	-	Roll
Length	-	As per label
Width	mm	1 500 ± 5%
Mass per Unit Area	gm <sup>2</sup>	128 ± 5%
Resistance to delamination		
a) Dry at elevated ambient temperatures	-	No delamination
b) Wet at elevated ambient temperatures	-	No delamination
Shrinkage		
a) Machine direction	%	< 1.5%
b) Cross machine direction	%	< 1.5%
Emissivity	-	-
Water vapour permeance:	g/(s.MN)	< 0.002
Reflective surface fire index	Class	1
Tensile breaking strength		
a) Machine direction	kN/m	> 2.2
b) Cross machine direction	kN/m	> 2.4
Bursting strength	kPa	298
Puncture resistance	mJ	> 1 320
Edge tear resistance		
a) Machine direction	N	> 70
b) Cross machine direction	N	> 50
System thermal resistance		0.9

GAP ANALYSIS

- For use under concrete and clay tiles only
- Installed with white side up and foil side down
- Insulation works by radation and not reflection therefore foil is facing down



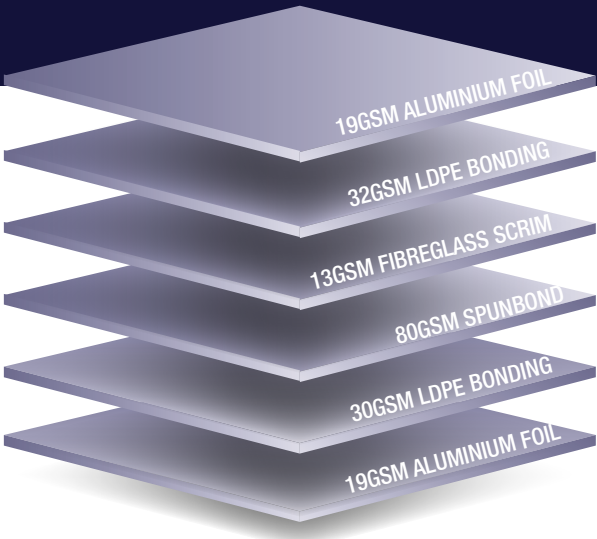
# DURAFOIL ULTRA® (DOUBLE FOIL)

SANS 1381-4: CLASS C

## POLYPROP NON-WOVEN MEMBRANE WITH FOIL LAMINATES

Durafoil Ultra Double Foil is a 5 layer laminate which carries the SANS 1381-4 mark Class C. It has been used extensively as an insulation membrane under tiled and metal roofs. The aluminium foil layers provide insulation, the top layer through reflectivity and the bottom layer through its low emmissivity. There must be an air space of at least 50mm for the reflective surfaces to function efficiently. The product does not need to be scrim reinforced as the spunbond layer provides adequate strength and stability.

The product will also act as a dustproof layer when used under roof tiles and has excellent vapour resistance.



PROPERTY	UNIT	TYPICAL VALUE
Class	-	C
Form	-	Roll
Length	mm	As per label
Width	mm	1 250 ± 5
Mass per Unit Area	gm <sup>2</sup>	176 ± 10
Resistance to delamination		
a) Dry at elevated ambient temperatures	-	No delamination
b) Wet at elevated ambient temperatures	-	No delamination
c) Resistance to corrosion	-	No corrosion
Shrinkage		
a) Machine direction	%	< 1.5%
b) Cross machine direction	%	< 1.5%
Emissivity	-	≤ 0.05
Water vapour permeance	g/(s.MN)	0.002
Relective surface fire index	Class	1
Fire performance		
Tested in terms of SANS 10177-10	Class	B/B1/B2
Tensile breaking strength		
a) Machine direction	kN/m	> 2.2
b) Cross machine direction	kN/m	> 2.4
Bursting strength	kPa	> 340
Puncture resistance	mJ	> 1 500
Edge tear resistance		
a) Machine direction	N	> 70
b) Cross machine direction	N	> 50
System thermal resistance		
Reflective surface facing hot surface	(m².K)/W	> 1.4*

\* Previously achieved values of up to 1.61 (SABS test report dated 2017/10/31)

### GAP ANALYSIS

- For use under all roof types
- 1.25m x 40m
- 50m² / roll





# DURAFOIL INDUSTRIAL DSD®

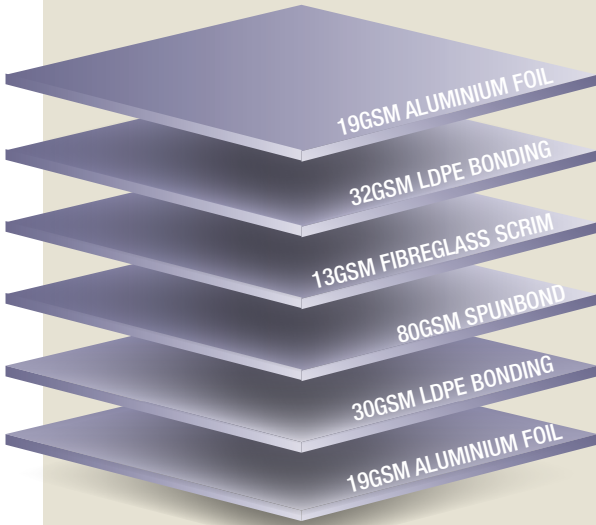
SANS 1381-4: CLASS A

## INSULATION MEMBRANE

Durafoil DSD is a 6 layer laminate consisting of two outer layers of aluminium foil, one layer of spunbond, one layer of reinforcing scrim and two layers of laminating polyethylene. It is a top of the range product and carries the SANS 1381-4 Class A mark certification.

The reinforcing scrim provides additional strength and stability making the product ideal for industrial applications.

Durafoil DSD has a B/B1/2/H fire rating which means it has a superior fire resistance and can be used in any structure with a B1 requirement fire rating with sprinklers.



DATA	UNIT	LIMITS
Class	–	A
Form	–	Roll
Length	mm	As per label
Width	mm	1250
Mass per unit area	gm <sup>2</sup>	177 ± 10%
Resistance to delamination		
a) Dry at elevated ambient temperatures	–	No delamination
b) Wet at elevated ambient temperatures	–	No delamination
c) Resistance to corrosion	–	No corrosion
Shrinkage		
a) Machine direction	%	<1.5
b) Cross machine direction	%	<1.5
Emissivity	–	≤0.05
Fire performance tested in terms of SANS 10177-11	Class	B/B1/2/H with sprinklers
Water vapour permeance: Reflective	g/(s.MN)	<0.002
Surface fire index as per SANS 428	Class	1
Tensile breaking strength	kN/m	
a) Machine direction		>2.83
b) Cross machine direction		>3.4
Bursting strength	kPa	>234
Puncture resistance	mJ	>1320
Edge tear resistance		
a) Machine direction	N	>70
b) Cross machine direction	N	>50
System thermal resistance: Reflective	(m <sup>2</sup> K)/W	>1.23

## GAP ANALYSIS

- Flame retardent rated B1
- Foil both sides for use under all roof types

## UT WOVEN®

AGREMENT CERTIFICATE 2014/469



### USED

- It is used for the prevention of draughts and dust penetration into the roof spaces through tiles, and prevents damage to ceilings, rotting of timbers and corrosion of plumbing.

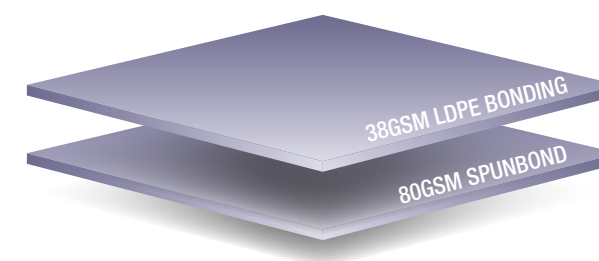
### BENEFITS

- The material equalises the pressure and complements the function of the roof tiles.
- It is flexible and easily handled.
- The membrane is also designed to prevent moisture from warm damp air reaching and condensing on ceiling boards and other vulnerable points in the building fabric.

PROPERTY	UNIT	TYPICAL VALUE
Form	-	Roll
Length	-	As per label
Width	mm	1 500
Thickness*, min.	µm	400
Mass per Unit Area	gm <sup>2</sup>	118
Tensile properties		
a) Breaking strength, min.	N/mm of width	2.16
b) Elongation at break, min.	%	50
Puncture resistance, min.	N/mm of thickness	29
Tear strength	N/mm of thickness	65
Resistance to accelerated aging, Retention, min.		
a) Breaking strength	%	90
b) Elongation at break	%	90
Resistance to accelerated weathering, Retention, min.		
a) Breaking strength	%	89
b) Elongation at break	%	80
Water vapour transmission rate, max.	g/m <sup>2</sup> .24h	12.2

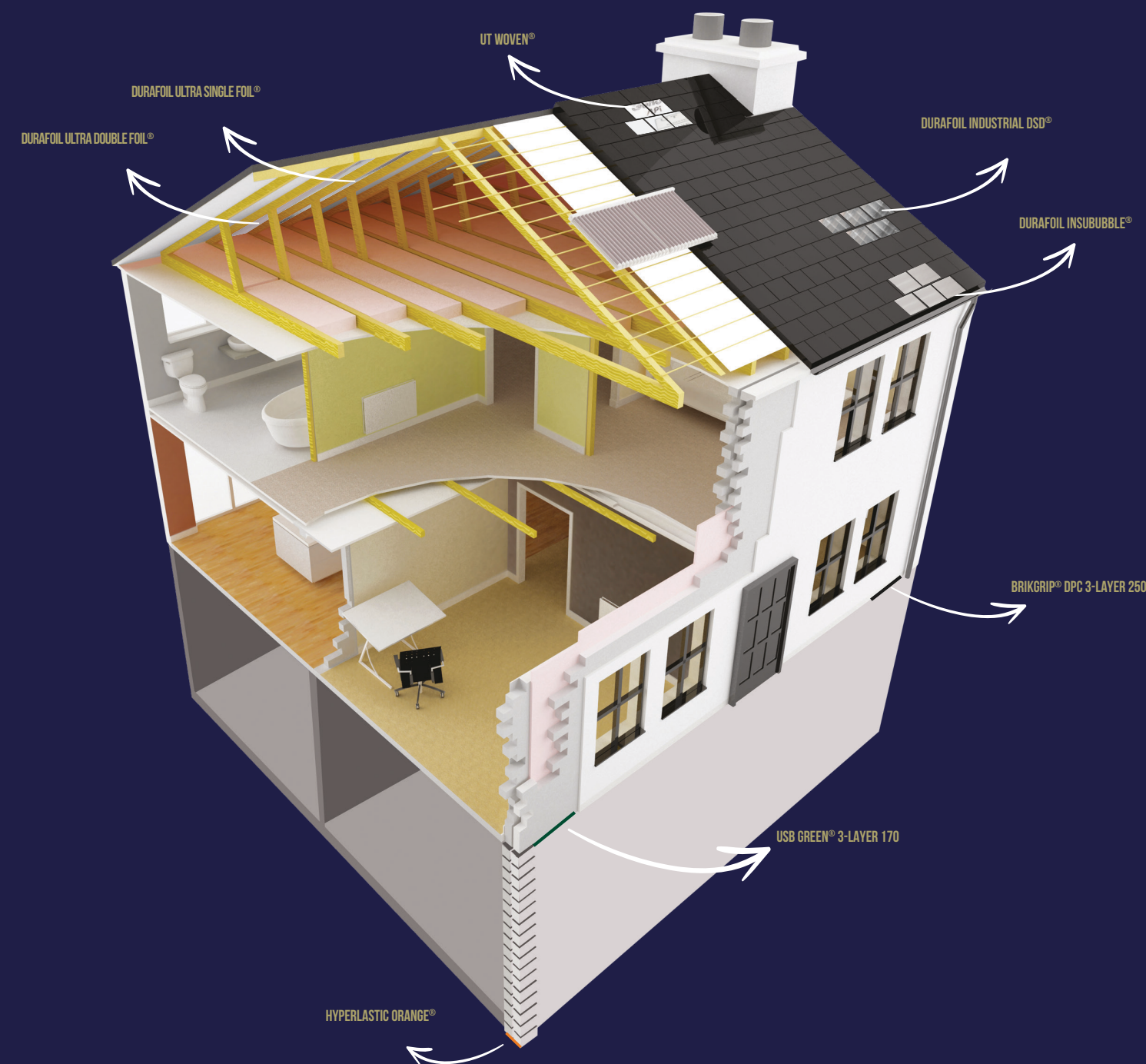
### GAP ANALYSIS

- For use under concrete or clay tiles only
- Coated with a layer of polyethylene on one side, leaving the overlap uncoated
- UT woven branding installed with the polyethylene coating facing down





# INTRODUCING THE GUNDLE SABS RANGE OF MEMBRANES



# GUNDLE API CERTIFIED - DAMP PROOFING PRODUCTS



**BRIKGRIP® DPC BLUE/BLACK® 250**  
SANS 952-1 : 2018



**BRIKGRIP® DPC 375**  
SANS 952-1: 2018



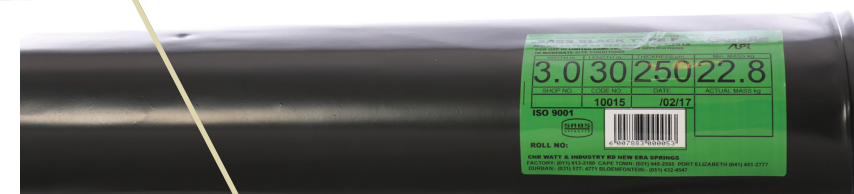
**GUNPLAS BLACK®**  
THICKNESS 100/150/250 MICRON



**SABS USB GREEN® 170**  
UNDERSURFACE BED MEMBRANE



**SABS USB GREEN® 250**  
UNDERSURFACE BED MEMBRANE



**SABS BLACK® 250/500**  
BLACK SHEETING



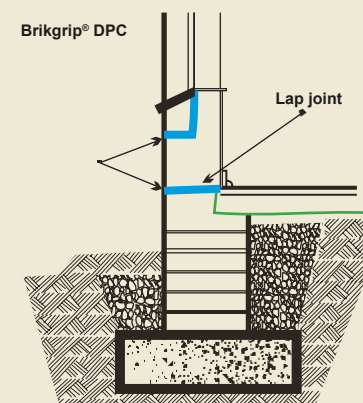
**SABS HYPERLASTIC ORANGE®**



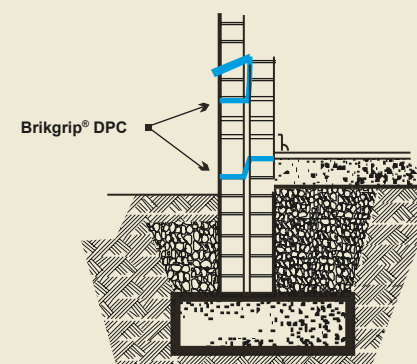
# BRIKGRIP® DPC 3-LAYER 250

SANS 952 - 1: 2018

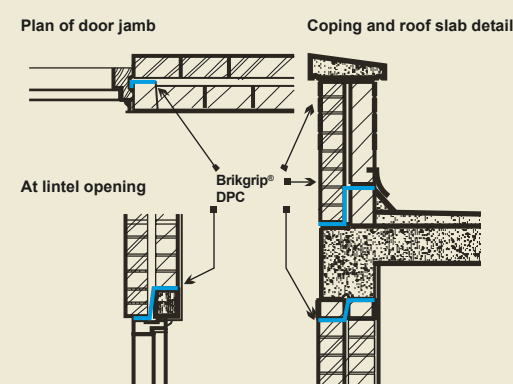
## SOLID WALL CONSTRUCTION



## CAVITY WALL CONSTRUCTION



## CAVITY WALL. PLAN OF DOOR JAMB. COPING & ROOF SLAB DETAIL



## DAMP PROOF COURSE

Brikgríp® DPC 3-LAYER 250 damp proof course is best utilised in preventing rising damp in walls. It prevents efflorescence and flaking of the wall covering. It will not absorb water and is chemically inert. Flexibility is retained between -45 and 78 degrees Celsius and the material does not extrude under pressure. Tear and puncture resistance are excellent.

## SPECIFICATION

The damp proof course shall consist of Brikgríp® DPC 3-LAYER 250 bearing SANS 952-1: Type B well lapped at joints and intersections and bedded and joined in cement mortar.

## BENEFITS

- Prevents rising damp
- Will not absorb water
- Easy to handle
- Chemically inert
- Excellent breaking strength
- Excellent puncture resistance
- Convenient widths





# ROOFING & CONSTRUCTION GUNDLE PRODUCTS COMPLY WITH THE FOLLOWING:

- National Building Regulations: South African Standard
- SANS 10400-K: 2015 Walls
- SANS 10400-J: 2016 Floors

## GUNDLE QUALITY

All Gundle products are tested in our sophisticated test laboratory, on an ongoing basis, according to our ISO, SABS and Agrément standards. All our products confirm to the NRCS requirements.

PROPERTY	REQUIREMENT			TEST METHOD SUBSECTION
	FILM TYPE			
	HYPERLASTIC ORANGE	BRICKGRIP DPC	USB GREEN	
Thickness*, µm, min.	250	250	170	6.5.1 or 6.5.2 as relevant
Tensile properties				
a) Breaking strength, N/mm of width, min.	3.75	3.76	2.16	6.6
b) Elongation at break, %, min.	350	350	200	6.6
Puncture resistance, N/mm of thickness, min.	30.5	25.0	35.0	6.7
Tear strength, N/mm of thickness, min.	53.5	43.0	75.0	6.8
Resistance to accelerated aging, % property retention, min.				
a) Breaking strength				6.9
b) Elongation at break				6.9
Resistance to accelerated weathering, % property retention, min.				
a) Breaking strength	50	50	50	6.10
b) Elongation at break	50	50	50	6.10
Water vapour transmission rate, g/m² 24 h, max.	1.6	1.9	2.9	6.11
Water penetration under hydrostatic pressure	Nil	Nil	-	6.12



GUNDLE WATERPROOFING PRODUCTS



BRIKGRIP® DPC 375

SANS 952- 1: 2018

DAMP-PROOF COURSE

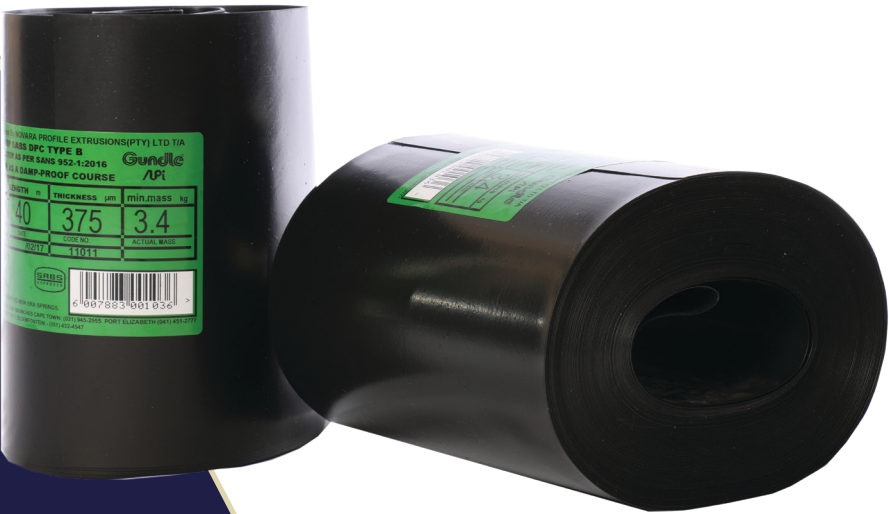
DPC Black® 375 micron dampproof course is best utilised in preventing rising damp in walls. It prevents efflorescence and flaking of the wall covering. It will not absorb water and is chemically inert. Flexibility is retained between -45 and 78 degrees Celsius and the material does not extrude under pressure.Tear and puncture resistance are excellent.

SPECIFICATION

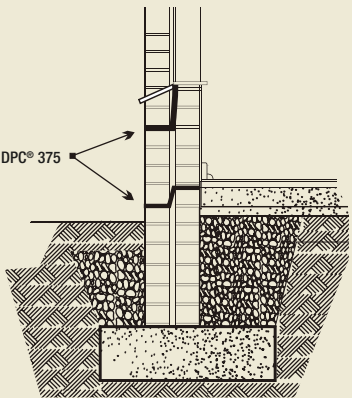
The damp-proof course shall consist of DPC Black® 375 with well lapped at joints and intersections and bedded and joined in cement mortar.



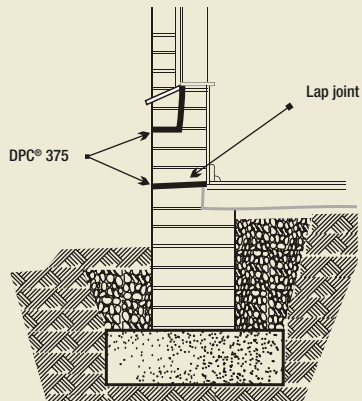
BRICKGRIP DPC® 375						
CERTIFICATION	SABS 952-2016 Type B for use as a damp proof course					
MATERIAL	Low-density Polyethylene					
FORM	Roll					
APPEARANCE	Black in colour					
THICKNESS	375 microns minimum					
ROLL LENGTH	40m					
ROLL WIDTH	110mm	150mm	225mm	300mm	340mm	450mm
ROLL WEIGHT	1.7kg	2.2kg	3.3kg	4.40kg	4.99kg	6.6kg
COMPLIES WITH	NRCS, NHBRC and the National Building Regulations					



CAVITY WALL CONSTRUCTION



SOLID WALL CONSTRUCTION





# GUNPLAS BLACK® 100/150/250

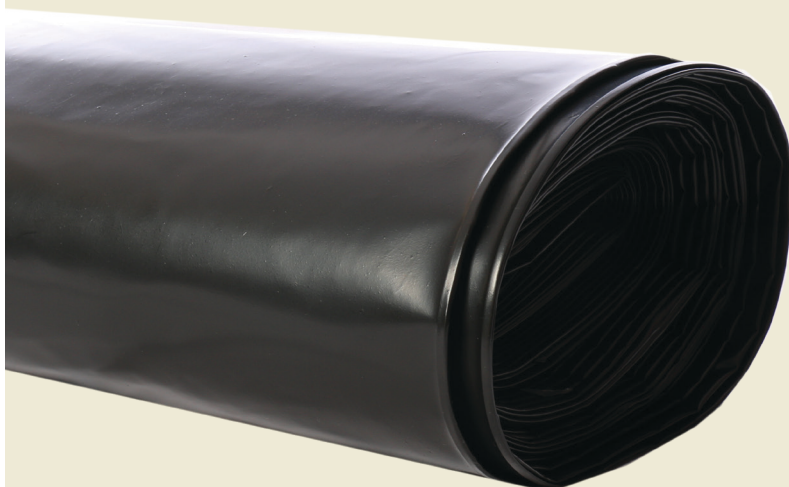
Gunplas Black® 100/150/250 is manufactured in three variations, namely 100, 150 and 250 microns. The sheeting is suitable for general applications such as covering materials on site.

The sheeting is available in 2m, 3m, 4m and 6m widths, as well as a specialised 8m width.



## GUNPLAS BLACK® 100/150/250 GENERAL PURPOSE

CERTIFICATION	None, as per National Building Regulations, this material is not suitable for building purposes						
MATERIAL	Low-density Polyethylene						
FORM	Roll						
APPEARANCE	Black in colour						
THICKNESS	100/150/250 microns						
ROLL LENGTH	30m						
ROLL WIDTH		1m	2m	3m	4m	6m	8m
ROLL WEIGHT (in kg)	100	2.77	5.5	8.3	11.07	16.6	-
	150	4.15	8.3	12.46	16.65	24.92	33.3
	250	6.92	13.84	20.8	27.69	41.53	55.38







# SABS BLACK® 250

SANS 952 - 1 : 2018

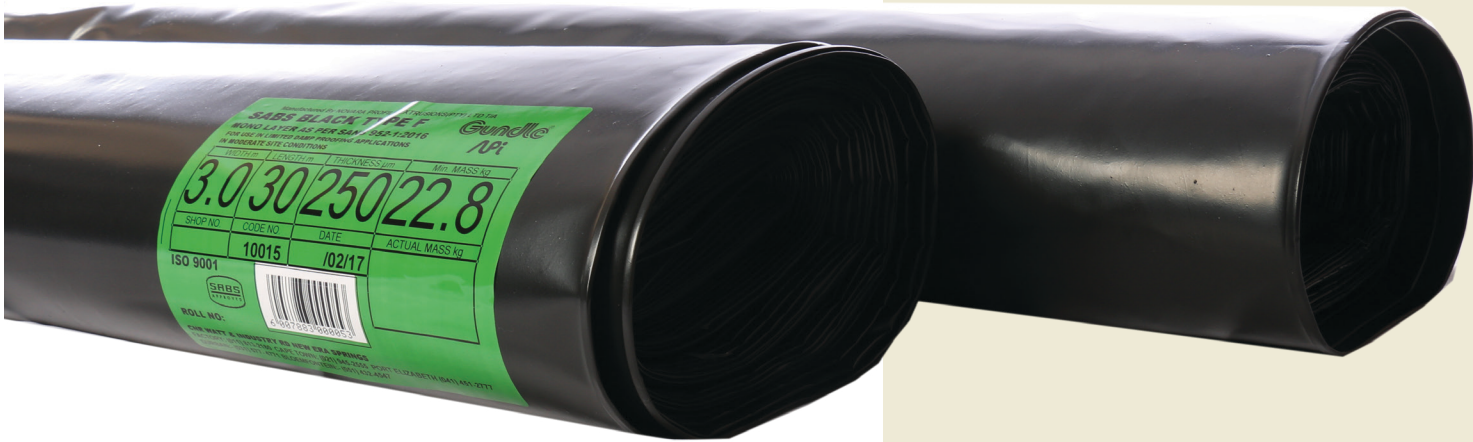
SABS Black® 250 The sheeting is suitable for use in limited damp proofing applications in moderate site conditions.

The 250 micron sheeting is available in 2m, 3m, 4m, 6m and 8m widths, while the 500 micron sheeting is available in 3m, 4m and 6m widths.



## SABS BLACK® 250

CERTIFICATION	SANS 952 - 1 : 2018 Type F for use in limited damp proofing applications in moderate site conditions						
MATERIAL	Low-density Polyethylene						
FORM	Roll						
APPEARANCE	Black in colour						
THICKNESS	250						
ROLL LENGTH	30m						
ROLL WIDTH		1m	2m	3m	4m	6m	8m
ROLL WEIGHT (in kg)	250	7.6	14.54	21.81	29.07	43.61	60.94
	All weights are in accordance with SABS and NRCS requirements						
COMPLIES WITH	NRCS, NHBRC and the National Building Regulations						





# USB GREEN® 250

SANS 952 - 1:2018

## UNDER-SURFACE BEDS

USB GREEN® 250 is used as a damp proof course or waterproofing membrane under surface bed membrane. USB GREEN® 250 is a mono-layer product that is also available as a co-extruded green/black.

## SPECIFICATION

One layer of USB GREEN® 250 bearing SANS 952-1: 2016 shall be laid in the widest practical widths to minimise joints and shall be taped down at the overlaps. The green face contains an anti termite insecticide and can be laid in contact with the soil.

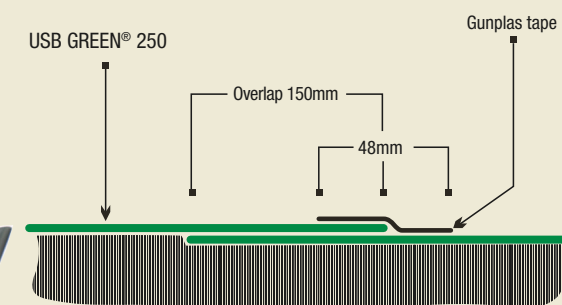
## BENEFITS

- Prevents rising damp
- Prevents contamination of concrete
- Specially formulated as a damp-proof membrane
- Good puncture resistance
- Good tear strength
- Wide widths (up to 6m)



### USB GREEN® 250

<b>CERTIFICATION</b>	SABS 952-1: 2018 Type C for use as a damp-proofing or waterproofing under surface membrane				
<b>MATERIAL</b>	Low-density Polyethylene				
<b>FORM</b>	Roll				
<b>APPEARANCE</b>	Green in colour				
<b>THICKNESS</b>	250 microns minimum				
<b>ROLL LENGTH</b>	30m				
<b>ROLL WIDTH</b>	2m	3m	4m	6m	8m
<b>ROLL WEIGHT</b>	14.54kg	21.81kg	29.07kg	43.61kg	60.92kg
<b>COMPLIES WITH</b>	NRCS, NHBC and the National Building Regulations				



# USB GREEN® 170

SANS 952 - 1: 2018

## UNDER-SURFACE BEDS

USB GREEN® 170 are co-extruded, consisting of the following:

**Outer layer** - Black low-density polyethylene containing carbon black, which is a natural ultra-violet inhibitor.

**Middle layer** - Black low-density polyethylene.

**Outer layer** - Green low-density polyethylene, which allows for easy identification on site and has a superior puncture resistance and is termite resistant.

**Note:** Because of their high carbon content, USB GREEN® 170 can also be used where SABS black sheeting is specified, as it exceeds the minimum specification required for SABS black.

## SPECIFICATION

One layer of USB GREEN® 170 damp proof sheeting bearing SANS 952-1: 2011 shall be laid in the widest practical widths to minimise joints and shall be taped down, using pressure sensitive tape, at the overlaps. The green face contains an anti termite insecticide and can be laid in contact with the soil.

## BENEFITS

- Prevents rising damp
- Prevents contamination of concrete
- Specially formulated as a damp-proof membrane
- Good puncture resistance
- Good tear strength
- Wide widths (up to 6m)



USB GREEN® 170				
CERTIFICATION	SABS 952-1: 2018 Type C			
MATERIAL	Low-density Polyethylene, co-extruded in three layers			
FORM	Roll			
APPEARANCE	Green with the obverse side black			
THICKNESS	SABS: 170 microns minimum Agrement: 170 microns nominal			
ROLL LENGTH	30m			
ROLL WIDTH		2m	3m	4m
ROLL WEIGHT	SABS	10.4kg	15.5kg	20.7kg
	Agrement	✓	✓	✓
COMPLIES WITH	NRCS, NHBRC and the National Building Regulations			



# HYPERLASTIC ORANGE®

SANS 952 - 1 : 2018

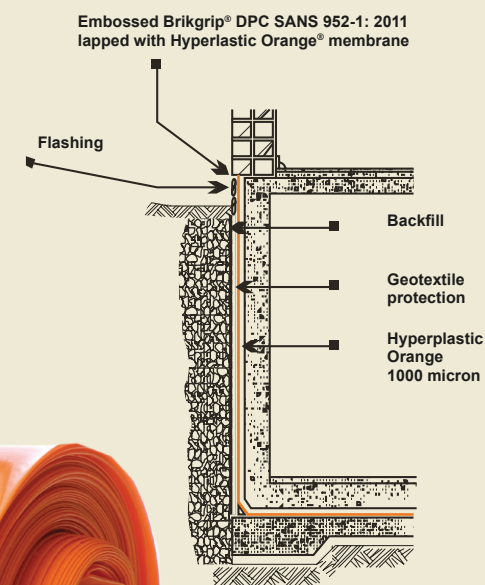
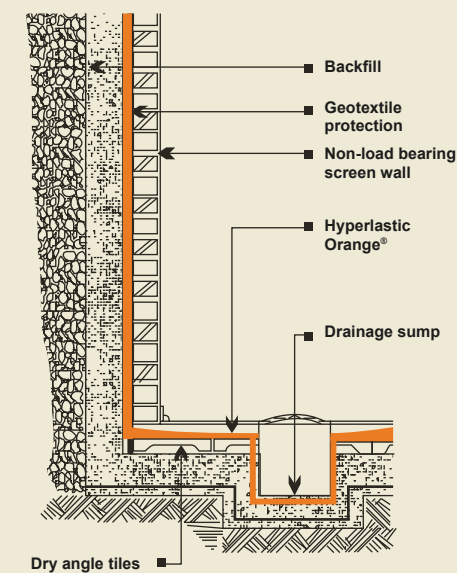
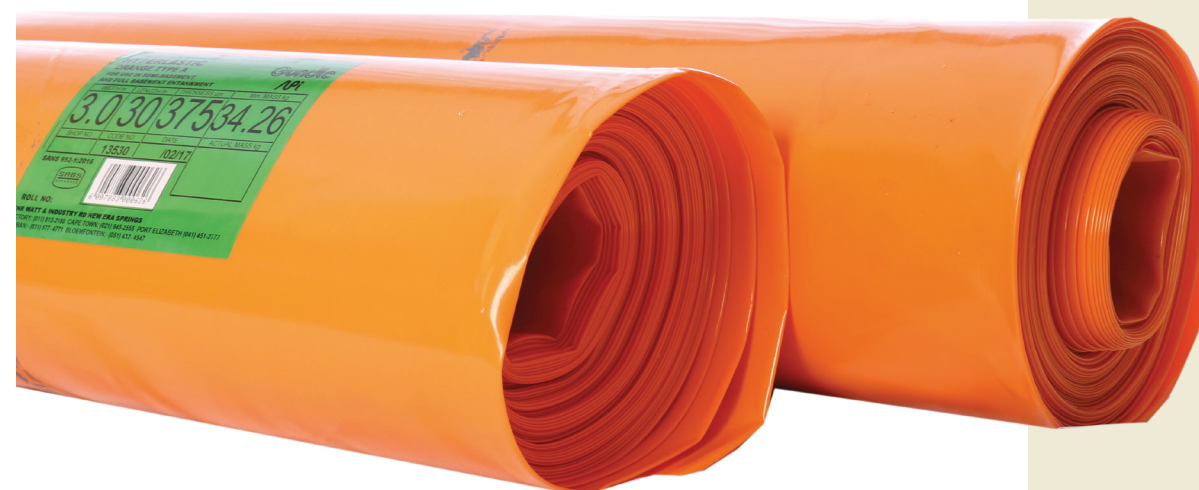
## BASEMENT LINERS

The waterproofing of a basement is dependent on the structural design. Gundle basement liners keeps your basement dry and keeps the damp from seeping into the walls when a portion of your house is underground or built against a hill, where you are most likely to have a high moisture content. Available are widths of 3m and 4m, in 30m lengths.

## SPECIFICATION

One layer of 375µm HYPERLASTIC ORANGE® waterproof sheeting bearing SANS 952-2011 Type A. Joining: All joining shall be carried out strictly in accordance with the manufacturer's instructions. Overlap shall be taken down using Butyl Rope.

HYPERLASTIC ORANGE® 250/500				
<b>CERTIFICATION</b>	SANS 952-2011 Type A			
<b>MATERIAL</b>	Virgin low-density Polyethylene			
<b>FORM</b>	Roll			
<b>APPEARANCE</b>	Orange in colour			
<b>THICKNESS</b>	500 micron (also available in 250, 375 & 1000 micron)			
<b>ROLL LENGTH</b>	30m			
<b>ROLL WIDTH</b>		3m	4m	
<b>ROLL WEIGHT (in kg)</b>	<b>500</b>	45.7	60.9	
	<b>375</b>	34.3	45.7	
	-	-	-	
<b>COMPLIES WITH</b>	NRCS, NHBRC and SANS 952-1: 2011			





# NOTES

**SPRINGS** (T) (011) 813 2180  
**DURBAN** (T) (031) 577 4771  
**CAPE TOWN** (T) (021) 945 2555  
**PORT ELIZABETH** (T) (041) 451 2777  
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