

# HI PLY PLAIN. HI PLY MINERAL

SBS POLYMER BITUMEN MODIFIED WATERPROOFING MEMBRANES  
FOR RESIDENTIAL & INDUSTRIAL APPLICATIONS



CC Technique Product Data Sheet

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Thermal & Protection

## ■ The Product

HI-PLY in its different versions is a polymer; type membrane obtained from distilled elastomeric resin SBS polymer bitumen. I-PLY reinforced with polyester is available in plain or mineral finish.

## ■ Uses

**HI-PLY PLAIN:** for its exceptional elasticity, excellent puncturing resistance, this membrane is suitable for application on various roof types, and underground applications, with the exception of those which are subjected to high levels of stress such as tensile structures or metal profile decks. And for its excellent flexibility (-5°C) is excellent for cold areas.

**HIPLY MINERAL** has the same composition as HIPLY PLAIN with grey mineral finish.

## ■ Advantages

### **Bitumen polymer elastomeric compound**

Resistant to low temperatures (-5°C)  
Excellent elasticity (up to 2000%)  
Absolute water tightness  
Good resistance to acids and alkalis

### **Non-woven polyester carrier**

Puncture resistant  
Wear resistant  
Tear resistant  
Good elongation  
Rot-proof

## ■ Finishes

### **Upper surface**

HI-PLY plain membranes are embossed with a pattern of small squares and are available with either talc or fine grain quartz finish, to ensure that the roll unwinds correctly.

Natural grey slate chips cover HI-PLY mineral membranes. A 7cm wide strip is left free of mineral chips to form the overlap joint. This area is protected by the application of Torch flam heat sensitive plastic which prevents the roll sticking together, but which readily melts when exposed to the flame of a roofing torch.

### **Lower surface**

All HI-PLY type membranes have Torch flam heat sensitive plastic film which prevents the roll from sticking together and to ensure that the roll unwinds correctly. This surface is again embossed with a pattern of small squares to help to Torch flam film to melt quickly to allow gases to escape and also acts as a temperature indicator to show that the compound has reached the correct fusion temperature.

## ■ Packaging

Rolls are generally 1 m wide and 10 m long. The top tape indicates the brand name, the middle one indicates the weight or thickness of the product and the lower tape indicates the product type. The rolls are supplied on wooden pallets and are held in place by a protective heat shrunk polythene covering. Each pallet has two control docket which enables the laboratory characteristics of the product to be readily identified.



## ■ Tools requirement

For the correct installation of HI-PLY type membranes, all that is required is a propane gas roofing torch complete with gas bottle, and at least 10m of approved type hose, a round nosed trowel or spatula, a utility knife and a pair of gloves.

## ■ Physical & chemical characteristics

	Procedure	Units	Tolerance	Value
<b>ASTM</b>				
Length		m	<-1%	10
Width		m	<-1%	1
Thickness	ASTM D5147	mm	-0.2mm	4.00
Softening Point (R+B) of coating mixture	ASTM D36	°C		>135
Tensile properties max. tensile force : -long -trans	ASTM D5147 ASTM D5147	N/50mm N/50mm	-20% -20%	850 700
Tensile properties elongation: - long - trans	ASTM D5147 ASTM D5147	% %	-15 -15	50 55
Resistance to tearing : - long - trans	ASTM D5147 ASTM D5147	N N	min min	550 355
Lap joint strength: - long - trans	ASTM D5147 ASTM D5147	N/50mm N/50mm	-20% -20%	850 700
Low temperature flexibility*		°C	min	-5
Dimensional stability at +80C: - long - trans	ASTM D5147 ASTM D5147	% %	mlv mlv	-0.5 -0.5
Water absorption (n/a slate)	ASTM D5147	%	mlv	<0.15
<b>CE</b>				
Visible defects	EN 1850-1	N °/m <sup>2</sup>	0	0
Length	EN 1848-1	m	<-1%	10
Width	EN 1848-1	m	<-1%	1
Straightness	EN 1849-1	mm	<20mm	pass
Mass per unit area	EN 1849-1	Kg/m <sup>2</sup>	+/-10%	4.70
Thickness	EN 1828-1	mm	-0.2mm	4.00
Water tightness to liquid water	EN 1850-1	mlv	>60kPa	pass
Tensile properties: max. tensile force - long - trans	EN 12311-1 EN 12311-1	N/5cm N/5cm	-20% -20%	850 700
Tensile properties: elongation: - long - trans	EN 12311-1 EN 12311-1	% %	-15 -15	50 55
Resistance to tearing (nail shank) - long - trans	EN 12310-1 EN 12310-1	N N	min min	270 270
Shear resistance of joint: - long - trans	EN 12317-1 EN 12317-1	N/5cm N/5cm	-20% -20%	850 700
Resistance to static loading (method A)	EN 12730	kg	min	20
Resistance to impact	EN 12691	mm	mlv	>700
Flexibility at low temperature*	EN 1109	C	min	-5
Dimensional Stability - long	EN 1107-1	%	max	-0.5
Flow Resistance less than 2mm	EN 1110	C	mlv	100
Reaction to fire	EN 13501-1		Euroclass	F

Code	Description	Unit Of Sale	Qty	Base Unit	Color
MD218004	Hi-Ply SBS Mod. 180 Gr Polyester,Sand (4mmx1Mx10M)	Roll	10	sqm	Black
MD218045	Ply SBS Mod. 180 Gr Polyester,Mineral (4.5Kgx1Mx10M)	Roll	10	sqm	Grey
MD218050	Hi-Ply SBS Mod. 180 Gr Polyester, Mineral (5Kgx1mx10M)	Roll	10	sqm	Grey