



## POLY-ELAST PV 180 S4

### Torch-Applied, Polymer Modified Bituminous Cap Sheet

#### Introduction

**POLY-ELAST PV 180 S4** is a torch-applied, bituminous cap sheet which is saturated and coated with high quality SBS (Styrene-Butadiene-Styrene) modified bitumen. It has a 180g/m<sup>2</sup> polyester fleece reinforcement, a thermofusible polyethylene film on the underside and has a slate surfaced finish. The product also incorporates a special graphite additive within the coating to provide exceptional fire protection properties and has been fully fire tested as part of a designated system in accordance with EN 13501-5 and ENV 1187:2002, Broof Test 4.

#### Product Description

**POLY-ELAST PV 180 S4** is designed for use as a high-performance cap sheet, and can be used as the final waterproofing layer on a variety of BÖRNER built-up roofing systems (e.g. Torch-Safe and full Torch-On specifications). The product is compatible with all common bituminous underlay membranes.

#### Product Features

- Torch-on application
- Graphite technology which actively prevents spread of flames on roof
- Excellent low temperature flexibility at -25°C
- SBS modified bitumen
- High tensile strength polyester reinforcement
- Tested as part of a system to achieve Broof Test 4 fire classification as certified by Warringtonfire

#### Application

**POLY-ELAST PV 180 S4** should be installed in accordance with manufacturer recommendations and all relevant national standards and codes of practice, including BS 8217: 2005 – the code of practice for reinforced bitumen membranes for roofing.

Roofing contractors should also be fully conversant with the guidelines set out in the National Federation of Roofing Contractors (NFRC) 'Safe2Torch' campaign. All operatives using torch guns or hot air guns during installation should be competent, conversant and capable of using such items in a safe and responsible manner. Care must also be taken when using torches and hot air guns in close proximity to combustible materials, decorative coatings and heat sensitive materials.

In order to install the **POLY-ELAST PV 180 S4** membrane correctly, ensure that the surface is dry, free of oil, fat and dust and other impurities. When setting out the field area, rolls should always be laid in the same direction. Side lap width should be at least 8 cm with end laps of at least 10 cm. A minimum 5 cm link with the waterproofing layers at all detailing and upstand abutments must also be achieved, with the completed detailing entirely encapsulating the insulation.

The **POLY-ELAST PV 180 S4** membrane must be fully bonded to the prepared substrate by using the torch-on application method, ensuring that a constant flow of bitumen is maintained across the whole width of the roll and that a continuous bead of bitumen (5-15 mm) is exuded from all side and end laps to demonstrate that a good seal has been achieved. The lower surface has a thermofusible film which rapidly melts during the torching operation. When addressing an angle where the membrane will change from a horizontal to a vertical configuration, press the product firmly into place and ensure that a full bond is achieved throughout the detail.

NB: The granule colour may vary during its useful life due to the effect of the weather and other outside agents.

## Chemical Resistance

**POLY-ELAST PV 180 S4** is water-resistant and is resistant to watery solutions of salt, diluted non-oxidising acids and bases. Aliphatic and aromatic hydrocarbons, as well as chlorine hydrocarbons, oils and greases may loosen the product and should therefore be avoided.

## Storage

Store in a cool, dry place and protect from direct sunlight.

## Health and Safety

Health and Safety should be observed at all times in accordance with HSE and industry guidance. Specific Risk Assessments and Method Statements should be produced by contractors where necessary to ensure Working at Heights, Fire Safety and Manual Handling rules are compliant with current law and regulations. Health and safety data sheets are available for all materials on request from BÖRNER Technical Service Department.

## Availability

Product Name	Product Code	Roll Dimensions (m)	Weight (kg/m <sup>2</sup> )
<b>POLY-ELAST PV 180 S4 (Crystal Black)</b>	TN627664	7.5 x 1.00	5.6
<b>POLY-ELAST PV 180 S4 (Anthracite)</b>	TN599028	7.5 x 1.00	5.6

## Performance and Key Properties

Properties	Test Method		Declared Performance
Length	DIN EN 1848-1	m	≥ 7.50
Width	DIN EN 1848-1	m	≥ 1.00
Straightness	DIN EN 1848-1	mm/10 m	≤ 20
Mass per unit area	DIN EN 1849-1	kg/m <sup>2</sup>	5.6 (± 5%)
Thickness	DIN EN 1849-1	mm	4.20 (± 0.2)
Water tightness at 200 kPa test pressure	DIN EN 1928 Method B	-	passed
Tensile properties: maximum tensile force	DIN EN 12311-1	N	≥ 900/600
Tensile properties: elongation	DIN EN 12311-1	%	≥ 35/35
Flexibility at low temperatures	DIN EN 1109	° C	≤ - 25
Flow resistance at elevated temperatures	DIN EN 1110	° C	≥ + 100
External fire performance	Fire tested as part of a system in accordance with EN 13501-5 and ENV 1187:2002, Broof Test 4 as certified by Warringtonfire*		
Reaction to fire	DIN EN 11925-2	Reaction to fire	DIN EN 11925-2

\*As outlined in Warringtonfire Classification Report Nos. 19901D & 19901H

## Quality Assurance

**POLY-ELAST PV 180 S4** is manufactured following ISO 9001: 2008 Quality Management System and Environmental Management System approved to ISO 14001: 2004.

## Technical Service and Other Products

Specialist advice and information on other compatible products can be found at <http://www.borner.ie>