

FLAGON EP/PR DE



WATERPROOFING

APPLICATIONS

ROOFS

GREEN ROOFS

PLANTER BOXES

TECHNICAL DATA SHEET

ANZ-TDS-114-FLAGON EP/PR DE

DESCRIPTION

FLAGON EP/PR DE is a synthetic membrane manufactured in TPO modified polyolefin, double colour white/black, obtained by co-extrusion, and reinforced by a polyester mesh.

FLAGON EP/PR DE is designed for roofing applications. It is resistant to ultraviolet rays, to puncturing, to weathering and to roots growth. With a high Solar Reflective Index (SRI), it is an ideal solution to keep roof surfaces cool under the sun.

FIELD OF APPLICATION

Designed for single-ply application on horizontal surfaces, FLAGON EP/PR DE is mechanically fixed on insulation panels, concrete ceilings or existing waterproofing with separation layer covering for the following general applications:

- General roofing
- Green roofs
- Planter boxes
- Plaza decks
- Balconies

APPLICATION METHOD

On the main surface, FLAGON EP/PR DE is semi-loose laid by mechanical fastening, and always laid to run a few centimetres on the parapet.

FLAGON EP/PR DE membrane is fastened around the perimeter of the roof and around any protruding features with FLAGORAIL bars or adapted screws and plates. At the top of the upstands, FLAGON EP/PR DE is heat welded on FLAGMETAL strip mechanically fastened onto the substrate. The overlaps are heat welded using a leister automatic welder or a hot air gun.

INSTALLATION PROCEDURE

SUBSTRATE

- No work should start until all surfaces are smooth, dry, and free of ice, snow or any other substance that may prevent the membrane from adhering properly.
- Substrate must have a minimum 1% gradient to ensure that water drains to drainage outlets.
- Concrete substrate must be fully cured before application of the membrane.
- Concrete substrate must have a Concrete Surface Profile (CSP) between 2 and 4 as per International Concrete Repair Institute.
- Adhesion test is recommended prior to installation of membrane.
- Commencement of installation shall be taken as acceptance of the substrate by the Applicator.
- The use of FLEXOCOL BONDING ADHESIVE is required before the installation of FLAGON EP/PR DE membrane at the vertical.

INSTALLATION

- Unroll membrane sheets onto the roof surface.
- Ensure specified side-laps and end-laps are maintained. End-laps should be staggered 1 m apart or lay a transverse sheet or strip (minimum width 20 cm) across the bottom of two or more perfectly aligned and parallel sheets to provide a connection to the subsequent set.
- Upstands are waterproofed with FLAGON EP/PR DE membrane using FLEXOCOL BONDING ADHESIVE adhesive for upstands <40 cm high or mechanical fixed when upstands >40cm.

Resistant to puncture and wind stress

Service life in excess of 35 years

Cold applied, flameless solution

Fire retardant properties

High resistant to weathering & UV rays

SRI of 107



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FLAGON EP/PR DE



WATERPROOFING

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ANZ-TDS-114-FLAGON EP/PR DE

INSTALLATION (CONT.)

- All penetrations and upturn details should be waterproofed as per SOPREMA Installation Guides and detail drawings.

FOR COMPLETE INFORMATION ON PRODUCT INSTALLATION, PLEASE CONSULT YOUR SOPREMA REPRESENTATIVE.

PACKAGING

SPECIFICATIONS	FLAGON EP/PR DE	
Thickness	1.5 mm	2 mm
Roll dimensions	20 m x 2.10 m	20 m x 2.10 m
Roll weight	70 kg	94 kg
Rolls per pallet	23	18

PROPERTIES

PROPERTIES	STANDARDS	FLAGON EP/PR DE	
		1.5 mm	2 mm
Weight (kg/m ²)	EN 1849-2	1.65	2.23
Tensile strength (N/5cm)	EN 12311-2	≥ 1100	≥ 1100
Elongation to break (%)	EN 12311-2	≥ 15	≥ 15
Tear resistance (N)	EN 12310-2	≥ 300	≥ 300
Resistance to impact (mm)	EN 12691	≥ 800	≥ 1250
Cold bending (°C)	EN 495-5	≤ - 35	≤ - 35
Hydrostatic pressure resistance (6 hours at 0.5 Mpa)	EN 1928 met. B	waterproof	waterproof
Dimensional stability after 6 hours at 80°C (%)	EN 1107-2	≤ 0.5	≤ 0.5
Resistance to artificial weathering (UV)	EN 1297	no surface cracking	no surface cracking
Resistance to roots penetration	EN 13948	no penetration	no penetration
Resistance to static punching (kg)	EN 12730	≥ 20	≥ 20
Fire resistance	EN ISO 11925-1 EN 13501-1	E	E

STATEMENT OF RESPONSIBILITY

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FLAGON EP/PR F DE



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ANZ-TDS-114-FLAGON EP/PR F DE

DESCRIPTION

FLAGON EP/PR F DE is a synthetic membrane manufactured in TPO modified polyolefin, dimensionally stabilized by a glass fiber and coupled on the back sheet with a non woven fleece.

FLAGON EP/PR F DE is designed for roofing applications. It is resistant to ultraviolet rays, to puncturing, to weathering and to roots growth. The upper white layer has a high Solar Reflective Index (SRI), it is an ideal solution to keep roof surfaces cool under the sun.

FIELD OF APPLICATION

Designed for single-ply application on horizontal surfaces, FLAGON EP/PR F DE is mechanically fixed or fully adhered on insulation panels, concrete ceilings or existing waterproofing for the following general applications:

- General roofing
- Green roofs
- Planter boxes
- Plaza decks
- Balconies

APPLICATION METHOD

On the main surface, FLAGON EP/PR F DE is fully adhered or mechanical fastened, and always laid to run a few centimetres on the parapet.

FLAGON EP/PR F DE membrane is fastened around the perimeter of the roof and around any protruding features with FLAGORAIL bars or adapted screws and plates. At the top of the upstands, FLAGON EP/PR DE is heat welded on FLAGMETAL strip mechanically fastened onto the substrate. The overlaps are heat welded using a leister automatic welder or a hot air gun.

INSTALLATION PROCEDURE

SUBSTRATE

- No work should start until all surfaces are smooth, dry, and free of ice, snow or any other substance that may prevent the membrane from adhering properly.
- Substrate must have a minimum 1% gradient to ensure that water drains to drainage outlets.
- Concrete substrate must be fully cured before application of the membrane.
- Concrete substrate must have a Concrete Surface Profile (CSP) between 2 and 4 as per International Concrete Repair Institute.
- Adhesion test is recommended prior to installation of membrane.
- Commencement of installation shall be taken as acceptance of the substrate by the Applicator.
- The use of FLEXOCOL A89 TPO is required before the installation of FLAGON EP/PR F DE membrane at the horizontal.

INSTALLATION

- Unroll membrane sheets onto the roof surface.
- Ensure specified side-laps and end-laps are maintained. End-laps should be staggered 1 m apart or lay a transverse sheet or strip (minimum width 20 cm) across the bottom of two or more perfectly aligned and parallel sheets to provide a connection to the subsequent set.
- Upstands are waterproofed with FLAGON EP/PR DE membrane using FLEXOCOL BONDING ADHESIVE adhesive for upstands <40 cm high or mechanical fixed when upstands >40cm.

Resistant to puncture and wind stress

Service life in excess of 35 years

Cold applied, flameless solution

Fire retardant properties

High resistant to weathering & UV rays

SRI of 107



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FLAGON EP/PR F DE



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TECHNICAL DATA SHEET

ANZ-TDS-122-FLAGON EP/PR F DE

INSTALLATION (CONT.)

- All penetrations and upturn details should be waterproofed as per SOPREMA Installation Guides and detail drawings.

FOR COMPLETE INFORMATION ON PRODUCT INSTALLATION, PLEASE CONSULT YOUR SOPREMA REPRESENTATIVE.

PACKAGING

SPECIFICATIONS	FLAGON EP/PR F DE	
Thickness	1.5 mm	2 mm
Roll dimensions	20 m x 2.10 m	20 m x 2.10 m
Roll weight	80 kg	105 kg
Rolls per pallet	12	12

PROPERTIES

PROPERTIES	STANDARDS	FLAGON EP/PR F DE	
		1.5 mm	2 mm
Weight (kg/m ²)	EN 1849-2	1.90	2.50
Tensile strength (N/5cm)	EN 12311-2	≥ 1000	≥ 1000
Elongation to break (%)	EN 12311-2	≥ 350	≥ 350
Tear resistance (N)	EN 12310-2	≥ 250	≥ 340
Resistance to impact (mm)	EN 12691	≥ 800	≥ 1250
Cold bending (°C)	EN 495-5	≤ - 35	≤ - 35
Hydrostatic pressure resistance (6 hours at 0.5 Mpa)	EN 1928 met. B	waterproof	waterproof
Dimensional stability after 6 hours at 80°C (%)	EN 1107-2	≤ 0.1	≤ 0.1
Resistance to artificial weathering (UV)	EN 1297	no surface cracking	no surface cracking
Resistance to roots penetration	EN 13948	no penetration	no penetration
Resistance to static punching (kg)	EN 12730	≥ 20	≥ 20
Fire resistance	EN ISO 11925-1 EN 13501-1	E	E

STATEMENT OF RESPONSIBILITY

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FLAGON EP/S



WATERPROOFING

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GREEN ROOFS

PLANTER BOXES

TECHNICAL DATA SHEET

ANZ-TDS-131-FLAGON EP/S

DESCRIPTION

FLAGON EP/S is a synthetic membrane manufactured in TPO modified polyolefin.

FLAGON EP/S is designed for roofing applications. It is resistant to ultraviolet rays.

FIELD OF APPLICATION

Designed for single-ply application on detailing work, FLAGON EP/S for the following general applications:

- General roofing
- Green roofs
- Planter boxes
- Plaza decks
- Balconies

APPLICATION METHOD

On the main surface, FLAGON EP/S is fully adhered or mechanical fastened, or loose laid.

The overlaps are heat welded using a leister automatic welder or a hot air gun.

INSTALLATION PROCEDURE

SUBSTRATE

- No work should start until all surfaces are smooth, dry, and free of ice, snow or any other substance that may prevent the membrane from adhering properly.
- Substrate must have a minimum 1% gradient to ensure that water drains to drainage outlets.
- Concrete substrate must be fully cured before application of the membrane.
- Concrete substrate must have a Concrete Surface Profile (CSP) between 2 and 4 as per International Concrete Repair Institute.
- Adhesion test is recommended prior to installation of membrane.
- Commencement of installation shall be taken as acceptance of the substrate by the Applicator.

INSTALLATION

- Upstands are waterproofed with FLAGON EP/S membrane using FLEXOCOL TPO V adhesive
- All penetrations and upturn details should be waterproof as per SOPREMA Installation Guides and detail drawings

FOR COMPLETE INFORMATION ON PRODUCT INSTALLATION, PLEASE CONSULT YOUR SOPREMA REPRESENTATIVE.

Service life in excess of 35 years

Cold applied, flameless solution

High resistant to weathering & UV rays

SRI of 99 (white)



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FLAGON EP/S



WATERPROOFING

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ANZ-TDS-131-FLAGON EP/S

PACKAGING

SPECIFICATIONS	FLAGON EP/S
Thickness	1.5 mm
Roll dimensions	20 m x 1.05 m
Roll weight	32 kg
Rolls per pallet	46

PROPERTIES

PROPERTIES	STANDARDS	FLAGON EP/S
		1.5 mm
Weight (kg/m ²)	EN 1849-2	1.50
Tensile strength (N/mm ²)	EN 12311-2	≥ 10
Elongation to break (%)	EN 12311-2	≥ 550
Tear resistance (N)	EN 12310-2	≥ 80
Resistance to impact (mm)	EN 12691	≥ 600
Cold bending (°C)	EN 495-5	≤ - 35
Hydrostatic pressure resistance (6 hours at 0.5 Mpa)	EN 1928 met. B	waterproof
Resistance to artificial weathering (UV)	EN 1297	grade 0
Resistance to static punching (kg)	EN 12730	≥ 20
Fire resistance	EN ISO 11925-1 EN 13501-1	E

STORAGE AND HANDLING

If stored outdoors, cover with an opaque protection cover after removal of the delivery packaging.

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ACCESSORY
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TPO METAL SHEET

TECHNICAL DATA SHEET

ANZ-TDS-130-FLAGON TPO METAL SHEET

DESCRIPTION

FLAGON TPO METAL SHEET is made of a flexible modified polyolefin FLAGON TPO membrane bonded to a galvanised steel sheet. FLAGON TPO METAL SHEET is used for the realisation of custom made finishing elements of a roof such as flashings and profiles.

It is distinguished by a high resistance to weathering and UV-rays.

FLAGON TPO METAL SHEET is compatible with FLAGON TPO membranes and ALSAN EP M.

APPLICATION

- Used for custom made finishing elements of a roof in combination with the flexible TPO waterproofing systems.
- Weld the FLAGON TPO membrane onto FLAGON TPO METAL SHEET with hot air.

FOR COMPLETE INFORMATION ON PRODUCT INSTALLATION, PLEASE CONSULT YOUR SOPREMA REPRESENTATIVE.

PACKAGING

SPECIFICATIONS	FLAGON TPO METAL SHEET
Upper side	Flexible TPO
Lower side	Galvanised steel
Total thickness	1,8 mm
Thickness PVC membrane	1,2 mm
Thickness steel sheet	0,6 mm
Width	1,00 m
Length	2 m / 3 m
Mass	5,5 kg/m ²

STORAGE AND HANDLING

If stored outdoors, cover with an opaque protection cover after removal of the delivery packaging.

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ACCESSORY
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FLAGON TPO PIPE COLLAR

TECHNICAL DATA SHEET

ANZ-TDS-129-FLAGON TPO PIPE COLLAR

DESCRIPTION

The FLAGON TPO PIPE COLLAR is a prefabricated element obtained by moulding and it is made of FLAGON TPO.

The FLAGON TPO PIPE COLLAR is used on roofing waterproofing system assembled with FLAGON TPO synthetic membranes to give continuity to the waterproofing around elements that come out from the roof.

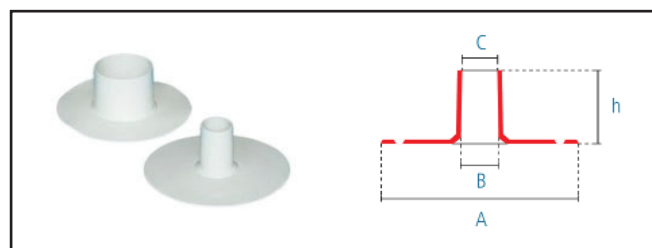
APPLICATION

- FLAGON TPO PIPE COLLAR are welded with hot air all along the flange perimeter on the Flagon TPO membranes. Around the elements that come out from the roof it is necessary to place a permanent elastic sealant between FLAGON TPO PIPE COLLAR and the element that come out from the roof and, subsequently, tighten the upper end with a stainless steel clamp.
- FLAGON TPO PIPE COLLAR is compatible with all the accessories and membrane in the FLAGON TPO range.

FOR COMPLETE INFORMATION ON PRODUCT INSTALLATION, PLEASE CONSULT YOUR SOPREMA REPRESENTATIVE.

PACKAGING

SPECIFICATIONS	FLAGON TPO PIPE COLLAR
Appearance	RAL 7047
Packaging	25 units per box



PROPERTIES

PROPERTIES	FLAGON TPO PIPE COLLAR										
		C10	C12	C30	C40	C60	C80	C100	C120	C140	C160
Width at flange	A	154 mm	154 mm	154 mm	154 mm	194 mm	194 mm	234 mm	234 mm	274 mm	274 mm
Internal diameter at bottom	B	11 mm	14 mm	32 mm	42 mm	62 mm	82 mm	102 mm	122 mm	142 mm	162 mm
Internal diameter at top	C	10 mm	12 mm	30 mm	40 mm	60 mm	80 mm	100 mm	120 mm	140 mm	160 mm
Height	h	60 mm	60 mm	60 mm	60 mm	60 mm	60 mm	90 mm	90 mm	90 mm	90 mm

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ACCESSORY PRODUCTS

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SOPRASOLAR FIX EVO TILT (TPO)

TECHNICAL DATA SHEET

ANZ-TDS-72.3-SOPRASOLAR FIX EVO TILT TPO

DESCRIPTION

The SOPRASOLAR FIX EVO TILT system is solar waterproofing solution for flat roofs used as a support for photovoltaic panels. It allows connection between the panel and cap sheet membrane without drilling into it and compromising the waterproofing properties of the roof.

APPLICATION METHOD

SOPRASOLAR FIX EVO TILT is installed in total adhesion by heat welded on horizontal surfaces of TPO membranes.

INSTALLATION PROCEDURE

SUBSTRATE

- No work should be started until all surfaces are smooth, dry, and free of ice, snow or any other substance that may prevent the membrane from adhering properly.
- Commencement of installation shall be taken as acceptance of the substrate by the Applicator.

INSTALLATION

- Install the FLAGON TPO membrane on the roof
- Mark the location of the SOPRASOLAR FIX EVO PEDESTAL on the FLAGON TPO membrane according to the pattern supplied by the contractor in charge of the photovoltaic panels
- Clean the FLAGON TPO membrane where the PEDESTAL will be welded
- Install the PEDESTAL on the marked area
- Weld the flages using a hot air welder

FOR COMPLETE INFORMATION ON PRODUCT INSTALLATION, PLEASE CONSULT YOUR SOPREMA REPRESENTATIVE.

PACKAGING

SOPRASOLAR FIX EVO TILT COMPONENTS

The SOPRASOLAR FIX EVO PEDESTAL is a factory assembled height-adjustable pedestal mechanically fastened to a piece of waterproofing membrane.

The LOWER RAISER and the UPPER RAISER allow the addition of a 10% slope to photovoltaic panels.

The RAISER BLOCKER ensures that the raiser blocks stay in place on the pedestals.

MATERIAL

Polyamide 6 with 30% fibreglass filler

6060 T6 primary aluminum

6060 T6 primary aluminum

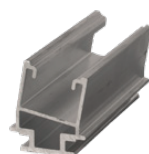
DIMENSIONS

PEDESTAL
250 mm × 370 mm / H: 120 mm to 160 mm

LOWER RAISER
40 mm × 120 mm × 45 mm

UPPER RAISER
40 mm × 120 mm × 200 mm

RAISER BLOCKER
50 mm × 125 mm × 25 mm



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ACCESSORY PRODUCTS

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SOPRASOLAR FIX EVO TILT (TPO)

TECHNICAL DATA SHEET

ANZ-TDS-72.3-SOPRASOLAR FIX EVO TILT TPO

PACKAGING

SPECIFICATIONS	SOPRASOLAR FIX EVO TILT
Total weight	1.2 kg
Material	TPO
Membrane thickness	1.8 mm

PROPERTIES

PROPERTIES	STANDARDS	SOPRASOLAR FIX EVO TILT
Reinforcement	-	Polyester matrix
Vertical tensile strength (pedestal)	-	1700 N
Maximum tensile force at break	EN 12311-2	≥1100 N/5 cm
Elongation at break	EN 12311-2	15%
Pliability at low temperature	EN 495-5	-40°C
Dimensional stability after 6 hours at 80°C	EN 1107-2	< 0.5%
Static puncture resistance method A	EN 12730: 2001	≥20 kg
Nail tear strength	EN 12310-1	≥500 N
Durability test - temperature ageing: 24 weeks at 70°C: - pliability (UEATC guide 4.4.1.1 EN 495-5) - Tensile strength - elongation (UEATC guide 4.4.1.1 EN 12311-2)		$\Delta \leq 10^\circ\text{C}$ +/- 20%

STORAGE AND HANDLING

The elements of the system must be stored protected. If the products are stored outdoors, cover them with an opaque protection cover after removal of the delivery packaging.

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