TECHNICAL DATA SHEET

Version 1.3 (Updated June 2023)

iPlus 4P

App Modified Torch Applied Bitumen Membrane

DESCRIPTION

iPlus 4P is a durable bituminous torch applied membrane made with high quality bitumen and specialized polymers (APP-Atatic Polypropylene) mixed together to obtain waterproofing ,UV resistance and excellent heat resistance properties. iPlus4P Plastomeric waterproofing membranes are manufactured by coating polymerized bitumen on to a dimensionally stable rot-proof reinforcement core of non-woven spun bond polyester fabric.

FEATURES & BENEFITS

- Good Dimensional Stability under tension –Alignment of membrane for application made easy
- High heat Resistance- can be used in hot climate also
- Good Flexibility- can accommodate structural movements
- Resists water borne chemicals- increases durability
- High puncture and fatigue resistance
- Excellent Mechanical Properties-high tensile and tear strength of iPlus 4P membrane ensure superior performance

TYPICAL APPLICATIONS

iPlus 4P membranes are best suitable for waterproofing of roofs, balconies and terraces. The membrane is used for both damp proofing and waterproofing applications.

- iPlus 4P is used as a waterproofing / damp proofing membrane for protection of concrete and other substrates
- in wide range of applications which includes the following:
- Bridges & tunnels
- Sunken slabs
- Inverted Roofs and parapets
- Terraces, balconies and patios
- Concrete foundations, Basements and isolated footings

STANDARDS

iPlus 4P membranes conform to the requirements of ASTM D6222/D6222M-16, UEAtc MOAT 31-1984, and tested in accordance with UEAtc MOAT 27-1983, ASTM D 5147

TECHNICAL PARAMETER

Properties	Values				Test Standards
Reinforcement Polyester, (g/m²)	160	180	200	250	-
Thickness(mm)	4.0	4.0	4.0	4.0	
Coating asphalt	SBS Polymer modified Asphalt				-
Softening point (°C)	150±5				ASTM D-36
Penetration @25°C (dmm)	20±5				ASTM D-5
Low temperature flexibility @ 0°C	No crack				ASTM D-5147
Heat resistance @ 120°C	No flow				ASTM D-5147
Tensile strength (L/T) (N/5cm)	550/450	800/600	850/650	950/700	EN 12311-1
Elongation at Break (L/T), (%)	>35/40	>40/50	>40/50	>40/50	EN 12311-1
Tear resistance (L/T), (N)	>300/200	>350/250	>400/350	>500/450	ASTM D-5147
Puncture resistance, (N)	>475	>475	>500	>500	ASTM E-154
Resistance to Static Loading	Static - L_{25}				UEAtc
Lap Joint strength, (N/5cm)	Same as membrane				EN 12317
Water absorption, (%)	< 0.15				ASTM D-5147
Hydrostatic pressure @5bar	Pass				EN 12390
Dimensional stability, (%)	<1				ASTM D-6222

All values given are subject to 5 – 15% Variation.

APPLICATION INSTRUCTION

Depending upon site conditions, application procedures may vary slightly, Recommended guidelines for the application of the membrane are given below, however for specific cases please contact Innobit Technical service department.

APPLICATION TEMPERATURE

The application temperature should be between 10°C to 45°C.

SUBSTRATE PREPARATION

The surface must be clean, dry and structurally sound. Any cracks or damaged concrete shall be repaired with suitable concrete repair systems. Any loose particles on the surface should be removed. Use industrial grade detergent or degreasing compounds for removing oil, grease and wax contaminants. Cement laitance, mold, release agents, curing membranes and other contaminants must be removed from the surface by grinding or scarifying followed by vacuum cleaning.

PRIMING

All surfaces to receive the membrane should be primed with iKote SB41. Application of the primer can be done by a brush or roller. Membrane can be applied only after the primed surface becomes touch dry. If the primed area is left exposed for more than 48hours, re-priming might be required depending on the dust accumulation on the surface

INSTALLATION

Alignment

Unroll and align iPlus 4P rolls and re-roll correctly before torching. Side and end overlap should be minimum of 100 mm.

Torching

Use propane/butane gas burner to heat substrate and underside of iPlus 4P for binding the membranes to the surface. Apply heat uniformly. Embossing on the lower face of the membrane allows a fast and safe laying. Start laying from the lowest point of the roof form an overlap so that the water can be shed. When embossing disappears after torching the membrane is ready to stick. Excessive heating may damage the reinforcement. Roll forward and press firmly against the substrate to bond. Stagger the overlaps of the adjacent rolls. Carefully torch and fix the strips of iPlus 4P to prepare the details such as corners, edges and joints in advance. Use a hand trowel to dress the overlap to ensure perfect bonding without any opening.

Sealing

Heat both the overlaps and use round tipped trowel to seal the overlap. Excess compound should be smoothened and pressed into seam using hot trowel.

Upstand

All angles and abutments should be sealed with extra care to ensure full bondage. Seal the edges well into the grooves and protect with a suitable mastic sealant.

PROTECTION INFORMATION

PROTECTION MATERIAL

The installed membrane must be protected from damage during and after ongoing site activities and back filling with suitable protection materials such as asphaltic protection board. Membrane laid horizontally can also be protected with cement sand screed (50mm thick)

SAFETY PRECAUTIONS

While heating, any naked flame should be kept well away from the gas cylinders. When ignited the torch should be watched at all times. The torch should not be rested on finished roofing. Extreme care should be taken when working near combustible materials or items which might be scorched by the gas flame.

STORAGE

Store iPlus 4P membrane and primer in a well-covered, cool, and dry place. iPlus 4P membranes should be stored vertically in a clean covered area. Rolls should not be stacked on top of each other

HEALTH, SAFETY & ENVIRONMENT

Caution should be exercised while applying the product as it is with any other bitumen material. Impervious gloves and barrier cream should be used when handling these products. Bitumen stains on skin can be removed by a suitable cleaning agent. Seek medical attention if situation becomes critical. iPlus 4P is non-hazardous, non-flammable and therefore can be disposed into any regular disposal area. However, it should be disposed only after wrapping with paper, plastic or cloth as the modified bitumen has a tendency to soften under heat and pressure which would make further handling very tough.

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