ELASTOSEAL - P

APP MODIFIED BITUMEN PLASTOMERIC WATERPROOFING MEMBRANE REINFORCED WITH COMPOSITE POLYESTER

ELASTOSEAL

COMPOSITE POLYESTER

What is ELASTOSEAL?

Produced by the HI-Tech Bonds Ltd, Elastoseal-P is a line of polymer-modified bitumen waterproofing membrane of the highest quality. Elastoseal-P is modified by APP and APAO, thus guaranteeing superior performance under various conditions.

ELASTOSEAL - P is reinforced with composite polyester (P) of non-woven polyester armoured with glass fiber filaments which provides highly mechanical properties and dimensional stability.

Uses

ELASTOSEAL - P is an enhanced features waterproofing membrane, can be applied virtually anywhere where torch applied modified bitumen membranes subject to high mechanical stresses, physical properties are specified and good cold flexibility features are required.

ELASTOSEAL - P can be applied in:

- Single layer roofing system for high performance requirements
- Double layer system for basements, tunnels and underground structures subject to moderate water pressure
- Double layer roofing system combined with ELASTOSEAL –G fiberglass reinforced
- Toilets and wet area inside buildings
- Retaining walls
- Under raft foundations
- Bridge deck waterproofing

ELASTOSEAL - P with Mineral Slated Finish is recommended for exposed roofing system (Unprotected) for Non-accessible roofs or roofs subject to low traffic conditions

Advantages

ELASTOSEAL - P has been designed with special regard to providing clients with an excellent and versatile product.

Advantages of **ELASTOSEAL – P** include:

- Easy to apply (by torch)
- Highly mechanical properties
- Absolute impermeability to water pressure
- Flexibility at low temperature up to -10°c
- Excellent high temperature performance
- Resistant to soil chemicals and salts up to certain limits
- Excellent adhesion on any surface
- High dimensional stability
- Environmentally friendly

Quality Control

The HI-Tech Bonds Ltd is ISO 9001 certified. It applies a stringent quality control system utilizing its in-house laboratory. Occasional samples are analyzed by independent laboratories to ensure continued adherence to the highest standards (ASTM, EN, DIN, UNI, etc.).

Each roll of Elastoseal is individually coded with a label containing all necessary information about the roll. This is intended to ensure tractability in accordance with ISO control standards.

Certification:

This product is certified from the Dubai government being in compliance with the quality mark of (EOS) and ASTM D 6222/2000

Product Range

Standard thickness available includes 3mm and 4mm. Some types could be available by weight 3kg/m2 and 4kg/m2.

Bottom surface finish is normally Polyethylene Film (PE).

Upper surface finish choices include:

- Polyethylene Film (PE)
- Fine Sand (S)
- Mineral Granule Grey (MG)
- Mineral Granule Green (MGRN)
- Mineral Granule Blue (MBL)
- Mineral Slated Grey (GY)
- Mineral Slated Green (GRN)
- Mineral slated White (WT)
- Mineral slated Red (RD)

Slated rolls are available in 4kg, 4.5kg and 5kg per square meter.

The nominal length of each roll is 10 meters and the nominal width is one meter.

Special specification can be designed based on client's needs.

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TECHNICAL DATA	TEST METHOD	UNIT	RESULT	صـ اوخلا ةينف لا
Roll Length		m	10	لـ طولا
Roll Width		m	1	ضـ رعلا
Thickness for PE finish		mm	3,4	يطش تل حطس لابل بـو نيلثي ا
Weight for slated surface finish		kg	4, 4.5 , 5	ذ وزلايبطش تلحطس لاوقصـ حلا
Softening Point (Ring & Ball)	ASTM D-36	°c	≥ 145	ةجر ةد ويللا)ربتخ ا ةقلح لا ورتك لا(
Penetration at 25 °c	ASTM D-5	dmm	25 to 30	دذ ع °52 ةي وئم ةجدر ق ارتخلاا
60 c		dmm	80 to 90	دذ ع °06 ةي وئم
Cold Flexibility	ASTM D-5147	°c	-10 to -6	ةن ورملا دذ ع ت اجدر رارقحلا ةضفخنملا
Heat Resistance	ASTM D-5147	°c	120	دذ ع ت اجدر رارقحلا ةيلاع لا ت ابثلا
Reinforcement		gm/m²	Polyester 200	حيلس تل ا
Tensile strength Long	ASTM D-5147	N/5cm	926	ايل طو
Wide		N/5cm	766	ةمواقم دشلا بوصد قلا
Elongation at break Long	ASTM D-5147	%	≥ 26	ايل طو
Wide		%	≥ 55	ةلاطتسا لاابوصد قلا ابضد عر
Tear Resistance (Nail – Shank) Long	UEAtc	N	300	ةمواقم ق زمتلا ايل طو
Wide		N	350	تافصد اوملل ةي بورلاا ايضد عر
Tensile-tear Resistance Long	ASTM D-5147	N	750	ةمواقم ق زمتلا ايلاقبطوط
Wide		N	700	تافصد اوملل ةيك يرملاا ايضد عر اقب ط
Joint tensile strength Long	ASTM D-5147	N	950	ةمواقم دشلا دذ ع نكام ا ايل طو
Wide		N	700	بوكر لا ابضد عر
Dimensional stability Long	UNI 8202	%	± 0.2	ايل طو
Wide		%	± 0.1	ادعب لأا تابـ ث
Water absorption	ASTM D-5147	%	0.15 max.	ةجدر صاصد تما ءاملا
Static puncture resistance	UEAtc		L4	ق ارتخلاا يكيتاتسد للاا ةمواقم
Dynamic puncture resistance	UEAtc	-	I4	ق ارتخلاا يكيمانيد دلا ةمواقم
Water impermeability at 100 K pa	UNI 8202	-	Absolutely impermeable	ةمواقم ةي انفن اءملا دنع 066 وليك لاكسد ب
Impermeability to water vapor	UNI 8202	µ	80,000	ارخب اءملا
Ageing due to U.V. radiation	ASTM G-53	-	Pass	ةمواقم ةي انفن الل ةعشلال ق فو ةيجسد قنبلا
Resistance to thermal ageing	UEAtc	-	No signs of deterioration after the test	ةمواقم ـم ادقتلا د رارحلا
Adhesion to concrete	UEAtc	N/cm	25	قلصد تلاا حطس لابا ةينلسد رخلا
Thermal conductivity	ASTM C-177	Kcal/mh °c	0.12	ةي رارحلا
Dielectric constant (k)	ASTM D-150	-	2.5	تب تلااثد ةيلصيو ملا بابرهكلا
Dielectric rigidity	-	Kv/mm	14	ةب لاص لـ زعلا ئد ةيبرهكلا
Average Granule loss for Mineral Slated Finish	ASTM D-5147	gm/m²	Less than 200	ةمي ق نقد لا تابيبط ل د ف ةلاحئارش لا طسد وتم يبطش ت حطسد لا د ولعلا وقصد حلاب ردوازلاا

NOTES:

- Above results are based on 4mm membrane
- Tolerance of the above results complies with the tolerance specification of (ASTM, UEATc and UNI 8202)
- Due to constant product improvements, Hi Tech Bonds Ltd reserves the right to change above values without advance notice

STORAGE:

- BITUMODE membranes should be stored vertically in well covered and ventilated place not subject to direct sunlight

APPLICATION INSTRUCTIONS:

- BITUMODE membranes are installed by propane torch welding method, loose laid or fully bonded to the substrate depending on system requirements
- While unloading from truck the rolls shall by no means allowed to fall or be thrown down from the truck
- To avoid applying the membrane to corners with 90 °C angle, sand cement cant strip 5x5 cm should be executed at horizontal - vertical intersections
- Surface to be waterproofed should be clean, dry, free from dust and smooth, in case of irregular surface a sand cement screed is recommended
- Before laying Elastoseal membranes, surface should be primed with cold applied bituminous primer (NIROL – S)
- Membrane is unrolled and placed in aligned position
- Each roll should overlap the next by 7.5cm side laps and 8cm staggered end laps
- Then, membrane should be re-rolled about half of its length without changing its orientation
- Using a propane gas torch the membrane is un-rolled again slowly while applying the flame to the entire exposed lower face (For fully bonded system) - until the plastic cover film burns off and the bituminous mass starts melting, thus creating a heat weld between the membrane and the substrate
- Then, torching of the seams takes place by heating the contact line at side and end laps by torch from above, pressing the upper membrane on to the lower one using a trowel, the torch has to be carefully used avoiding to keep the flame on the same point for too long
- For sloping roofs start laying the membrane from the lower edge with longitudinal direction of rolls perpendicular to slope direction, side lap of next roll to be placed above the first one, etc…

For detailed application procedures please refer to ELASTOSEAL MAUAL GUIDE, where you can find construction detail drawings

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Hi-Tech Bonds

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