Ennis-Flint Hot Applied Sealants

PRODUCT DATA

THORMASEAL TROPICAL A

Thormaseal Tropical A is a hot poured polymer modified bitumen joint sealant and overseal banding repair material. It is a tropical grade sealant for applications in hot climates. It's superior blend of bitumen, polymer and mineral fillers produces a smooth, tough compound with improved elastomeric performance for easy and rapid application. As an overbanding material it can be successfully applied in finished widths of 40-100 mm and provides a tackfree band with good adhesion to the road surface without the use of a primer. The problems of 'tyre pick-up' are eliminated because of its' resistance to deformation at road temperatures reaching 60°C.

Thormaseal Tropical A offers good extension over a range of service temperatures (approximately 0 °C to +50 °C with a high resistance to flow, excellent pourability at temperatures well below the maximum safe heating temperature.

Properties

- Performs over a wide range of temperatures, from 0 to 50 °C
- Pouring temperature: 190 to 220 °C
 Safe heating temperature: 220 °C
- Flash point: 230 °CDensity: 1.20 ± 0.05
- Minimum application temperature (air): 5 °C
- Maximum safe heating period: 6 hours

Applications

Thormaseal Tropical A is ideal for the sealing of horizontal construction, expansion and contraction joints in concrete and asphalt roads, runways and thoroughfares.

Chemical Resistance

Good resistance to dilute acids and dilute alkalis. Not resistant to petroleum solvents, mineral oils, vegetable oils and greases.

The product data offered herein is, to the best of our knowledge, true and accurate, but all recommendations are made without warranty, expressed or implied. Because the conditions of use are beyond our control, neither Ennis-Flint nor its agents shall be liable for any injury, loss or damage, direct or consequential, arising from the use or the inability to use the product described herein. As Ennis-Flint has neither control over the installation of product described herein nor control of the environmental factors the installed markings are subjected to, there is no guarantee as to the durability or the retroreflective properties of any marking system applied. No person is authorized to make any statement or recommendation not contained in the Product Data, and any such statement or recommendation, if made, shall not bind the Corporation. Further, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents, and no license under the claims of any patent is either implied or granted

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Typical Test Results

TEST	TEST METHOD	TYPICAL TEST RESULT	EF SPECIFICATION
Softening point (°C)	EN 1427: 2000	100 - 105	≥ 95
Density (g.cm ⁻³) at 25°C	In-house method	1.35	1.35 ± 0.1
Cone Penetration (dmm) at 25°C	EN 13880-2: 2003	15 - 20	10 - 30
Flow resistance (mm) at 60°C	BS 2499	0	0
Extension, 50%, 3 cycles at 25°C	In-house method	3/3 passes	3/3 passes

Preparation of Joints and Cracks

Joints and cracks should be thoroughly cleaned and dried using a hot compressed air lance, or by grit blasting or power brushing, to ensure removal of all detritus and, where applicable, moribund sealant. Repairs using an approved epoxy mortar should be carried out on badly spalled joints.

Application

The joint sealant compound should be heated and agitated in a purpose built thermostatically controlled sealant pre-heater unit, ensuring that temperature does not exceed 220°C. The material should then be pumped into the joint, or poured using a melt-pourer or bucket and screed box, with the minimum loss of temperature. Joints should be sealed to a level of approximately 3mm below the surface. Material should not be re-heated.

Packaging and Storage

Thormaseal Tropical A is supplied in 4-ply sacks containing approximately 20kg of material. When stored dry and under cover shelf life is in excess of 24 months.

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Approximate Usage Rates

The following table shows the approximate product weight (in kg) required per 250 m (linear) for the dimensions specified:

Width (mm)								
10	13	15	20	25	30	35	40	Depth (mm)
33	43	49	66	82	98	115	131	10
	55	64	85	106	128	149	170	13
		74	98	123	147	172	197	15
			131	164	197	229	262	20
				205	246	287	328	25
					295	344	393	30
						401	459	35
							524	40

Safe Handling Precautions

- Suitable protective clothing should be worn when handling hot materials.
- Gloves should be worn at all times and face shields if there is a danger of splashing.
- Do not allow water to contact hot materials.
- Do not exceed recommended maximum temperature.
- If molten material contacts skin do not attempt to remove. Immerse affected area in cold running water. Seek medical advice without delay.
- For further information refer to product Safety Data Sheet.

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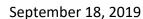
LIST OF GACA APPROVED MATERIAL FOR PAVEMENTS

TYPE	AREA OF APPLICATION	APPROVED MATERIAL	COMPANY/SUPPLIER
CRACK SEALING	ALL ASPHALTED PAVED	-THORMASEAL TROPICAL A	SAAD ABU KHADRA
	AREAS	-POLYFLEX TYPE3	SAAD ABU KHADRA
		-DEERY 200	LAST DIMENSION CO.
SKIN PATCHING	ALL ASPHALTED PAVED	-SSL=3	AL MAJD
Salveraciono	AREAS	-SK-60	AL MAJD
		-SS-1H	AL MAJD
		-CSS-1H	SAADYLITE
		-CEMTEC SS-1HP	CMCI
		-CEMTEC L3-LV	CMCI
		-EUCO EMULSION	CMCI
JOINT SEALING-	CONCRETE APRONS AND	-NITOSEAL 200	FOSAM
CONCRETE SLABS	THRESHOLDS	-UREXPAN NR-300	NAHHAS
		-CICO JOINT 400	C.I.C
		-THIOFLEX 600	FOSAM
		-CHEM CRETE CCC D-200	CHEM CRETE
		-BRIMO KOL PG 1660	SIPCO
		-CHEM SEAL 777-1	SAAD ABU KHADRA
SPALLED (BROKEN)	CONCRETE APRONS AND	-CICO MORTAR-R	C.I.C
EDGES/CORNERS REPAIR	THRESHOLDS	-EPOMART 1000/100	CMCI
MORTAR		-CHEM REPAIR 510-1EP	CHEM CRETE
CONCRETE SURFACE	CONCRETE APRONS AND	-BRUSH BOND	FOSAM
TREATMENT	THRESHOLDS	-CEMTEC BRUSH COAT	CMCI
JOINT SEALANT BETWEEN	CONCRETE APRONS AND	-THORMASEAL TROPICAL A	SAAD ABU KHADRA
CONCRETE AND ASPHALT	THRESHOLDS	-NITOSEAL 200	FOSAM
		-CHEM SEAL 777-1	SAAD ABU KHADRA
FUEL SPILLAGE REMOVAL	ALL ASPHALT AND CONCRETE SURFACES	-SCOPE DC	ABU DAWOUD
NAVIGATIONAL TRAFFIC	ALL ASPHALT AND CONCRETE	-HEMPEL	HEMPEL
PAINT	SURFACES	-AL JAZEERA	AL JAZEERA
WHITE/YELLOW/BLACK AND GLASS BEADS	κ,	-SAAD ABU KHADRA	SAAD ABU KHADRA
SOIL STABILIZING	RWY/TWY/APRON UNPAVED	-SOIL SEMENT	MEDWEST-FIAN
	SAFETY AREAS	-CHEM CRETE ECO-110	CHEM CRETE
		-TERRALOC	HORIZON SHIELD EST.
PATCHING	SERVICE ROADS, MOVEMENT	-CRAFCO HP CONCRETE	SAAD ABU KHADRA
	AREAS, CAR PARKINGS	COLD	
		-CRAFCO HP ASPHALT	SAAD ABU KHADRA
		COLD PTACH	

APPROVED BY: ENG. JAMAL HAMDAN

SÚPERVISOR, PAVEMENTS

DATED: 28/03/2017





MINISTRY OF TRANSPORT Kingdom of Saudi Arabia

To Whom It May Concern:

As director for business development for ENNIS-FLINT, EMEA (Europe, Middle East and Africa), located at 5 Drumhead Road, Chorley North Industrial Park, Chorley, Lancashire, United Kingdom, I declare that for the market of the Kingdom of Saudi Arabia, ABDULLLAH JABIR ASAAD AL-FIFI FOR TRADING AND CONTRACTING EST., is an authorized distributor, subject to the terms and conditions outlined in our distributorship agreement with them.

The agreement covers: THORMAJOINT BJ 200 RED, FIBRESCREED RC 100 MTR, THORMASEAL TROPICAL A, REFLECTIVE PAVEMENT MARKERS and water and solvent based TRAFFIC PAINT for roads and airports.

For more information, please don't hesitate to contact me.

Sincerely,

Gerhard Hartleben

Business Development Director

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