CCI Modified-Bitumen Membrane

4mm Thickness

Product Introduction:

CCI-Modified Bitumen Membrane is a Torch-applied bituminous felt reinforced with non-woven polyester mat and modified with APP elastomeric bitumen. CCI-Modified Bitumen Membrane has cold flexibility property of -10°C. Produced in thickness of 4 mm CCI-Modified Bitumen Membrane is commercialized bottom and upper surfaces protected by thermo-fusible PE film. CCI-Modified Bitumen Membrane is a heavy duty felt reinforced with 250 gr/m² non-woven polyester mat and used in civil engineering works; viaducts, bridges and tunnels on highways and railways. Can be applied for upper layer of multi-layer build-up system or single layer.

Usage and Properties:

CCI-Modified Bitumen Membrane is a heavy-duty professional and reliable quality waterproofing membrane approved by highway authorities. •Waterproofing of civil works: viaducts, metallic bridges, reinforced concrete highway and rail bridges, car parks, avalanche barriers, bleachers and roofs of the stadiums, tunnels and underground passageways, canals, dams, locks or docks, walkway, well casings, hopper, cut and cover, technical gallery, new construction or in the course of maintenance. •For effective waterproofing water tightness alone is not enough. The waterproofing felt must possess a number of additional qualities; adhesion and mechanical resistance in order to resist to the effects of thermal expansion/ retraction, heavy traffic or other loading imposed damaging effects of all likely contaminants, etc. and resistance to the damaging effects of biological, chemical and physical agents. •The waterproofing felt should also resist to aging degradation of the structure in order to maintain the water-tightness of the entire building. CCI Bitumen membranes have optimal mechanical and physical properties and their quality is ultimate in performance, versatility, and ease-of-use.

Test Report:

Serial Number	Items		Standard Specification	Result	Remarks
1	Mass per unit area, kg/m2		4.3 or higher	4.5, 4.6, 4.4, 4.5, 4.5	Passed
2	Area, m2/roll		10±0.10	10.01, 10.02, 10.01, 10.00, 10.01	Passed
3	Thickness, mm	Average value	≥4.0	4.1, 4.2, 4.0, 4.2, 4	Passed
		Minimum Value	3.7	4.0,4.0,4.01,4.02,4.01	Passed
4	Appearance	End face inside out, mm	Not exceed 10	3,5,6,3,7	Passed
		Feeling condition	The tire base should be soaked and there should be no unimpregnated areas. The surface should be flat, no holes, missing edges and cracks, bumps are allowed	The tire base is soaked, surface is smooth, without holes, missing edges, cracks or bumps	Passed
		Open book	When the coil is rolled out at any	No cracks	Passed

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				product temperature (4-60°C), there should be no cracks or adhesion of more than 10mm beyond the length of 1000mm from the core		
		Joints		There should be no more than one, and the length of the shorter section should not be less than 1000mm. The joints should be cut neatly and lengthened by 150mm.	No splices	Passed
5	Soluble content			≥2900	3156	Passed
6	Heat resistance	110°C Slide, mm	Upper Surface	≤2	0	Passed
			Lower Surface		0	Passed
		Test phenomena		No flowing or dripping	No flowing or dripping	Passed
7	Low temperature flexibility			-15°C, no cracks	No cracks	Passed
8	Impermeable, 30 min			0.3 MPa	0.3 MPa, 30 mins waterproof	Passed
9	Pull	Maximum peak,N/50mm	Longitudinal	≥800	865	Passed
			Landscape		845	Passed
		Test phenomena		During the tensile process, there is no cracking or separation of the asphalt coating layer from the tire base in the middle part of the specimen	There is no cracking or separation of the asphalt coating layer from the tire base in the middle part of the specimen	Passed
10	Elongation	Maximum peak elongation, %	Longitudinal	≥40	48	Passed
			Landscape		46	Passed
11	Mass increase after soaking, %			≤1.0	0.6	Passed
12	Hot	Pull hold rate, %	Longitudinal	≥90	97	Passed
			Landscape		95	Passed
		Elongation retention rate, %	Longitudinal	≥80	87	Passed
			Landscape		86	Passed
		Low temperature flexibility		-10°C, no cracks	No cracks	Passed

		Size change rate, %		≤0.7	0.6	Passed
		Quality loss, %		≤1.0	0.7	Passed
13	Seam peel strength, N/mm			≥1.0	1.1	Passed
14	Thickness of asphalt coating on the bottom surface of the coil, mm			≥1.0	1.2	Passed
15	Artificial climate acceleration	Appearance		No sliding, flowing, dripping	No sliding, flowing, dripping	Passed
		Pull to keep aging rate, %	Longitudinal	≥80	86	Passed
			Landscape		85	Passed
		Low temperature flexibility		-10°C, no cracks	No cracks	Passed

General Application Steps:

1. Clean and prime the substrate to properly receive a new, two-ply waterproofing membrane. Make sure the primer is completely dry before application.
2. The movement of the torch should be a continuous to and from motion allowing the flame to cover the entire width of the membrane without burning the side of the adjacent sheet already installed.
3. Heat concrete substrate when it's cold. Verify that all roof openings, curbs, pipes, sleeves, ducts, vents, valley, ridges, box gutters, dormers, hips, eaves, rain water outlets, chimney, expansion joints or other penetrations through the roof are solidly set, and that all flashings are properly sealed.
4. Side laps must be 10 cm and end lap joints must be at least 15 cm. The overlapping lines of base sheets at side lap joints serve as a guide for proper side overlapping.
5. End laps are areas of possible infiltration of water due to an excessive thickness of membrane causing a void. After aligning end lap, perform a 45° angle cut at on all the end laps of the underlying sheet. Once the 45° angle cut is performed it will provide a smooth tapered transition. An asphaltic bleed out must be achieved at this transition location and at all the “T” joints formed by the succeeding courses.
6. To prevent overly thick membranes, stagger the end laps a minimum of 30 cm relative to those of the base sheet.
7. Use a geotextile as a separation layer prior to the application of the asphalt.

Note:

Rain, frost, snow and high humidity can interfere with the adhesion of the membrane. With temperatures below +2°C it is better to avoid the application. Before application the substrate must be clean and dry. Standing water should be removed from the deck surface before recommencing laying operations. Special care is required during installation to avoid damage to waterproofing membranes. If it is impossible to restrict access to the waterproofing professionals alone, temporary protection must be employed to protect the membrane from the level of traffic. All works after the laying of the

Packaging:

Membrane: 1M x 10M
Primer: 20.0 Kgs
Note: 20Kgs of primer for 40sqm

Tools:

Roofing torch, propane cylinder, connecting hoses with regulator, trowel, knife and gloves.

Storage:

Protect material from heat and direct sunlight. Keep rolls in a vertical position and do not stack them.