

OVERVIEW

RANSPIPE-CBT 2MM is an Anti-Corrosive tape based on Coal Tar/ Bitumen and specifically designed to comply with the requirements of IS: 10221-1982. It incorporates a centre core of 45 gsm/sqm of Fibre Glass Tissue and HMHDPE film of 20 micron which lends mechanical strength, dimensional stability to the product. These centre cores are laminated with 3 layers of coal tar or bitumen mix. The final product has a top and bottom layer of thermo fusible HMHDPE Film. All the seven layers are calendared together to create this revolutionary 2mm thick tape. The material conforms to IS: 15337-2003 and AWWA: C203-2008.

PROPERTIES

- Excellent resistance to positive water & vapor pressure.
- Good heat resistance.
- Moisture Resistance.
- Good dimensional stability under tension.
- High puncture and fatigue resistance.
- High tensile and tear strengths.
- Corrosion Prevention.

INSTRUCTIONS FOR USE

The application temperature should be between 5°C to 45°C. Application procedures may vary slightly depending upon site conditions. The general recommended guidelines for the application of the waterproofing system are as follows:

SURFACE PREPARATION

The surface shall be cleaned thoroughly of all contaminants like dust, traces of curing compound, oil and grease. All surface imperfections and protrusions shall be removed and repaired.

PRIMING

Apply Solvent based RANSBITU-PRIMER @ 0.3-0.4L /Sqmt as per ASTM D 41 & IS: 3384-1986 and BS 4147-1980 to a clean smooth and dry surface by brush, roller or spray. Allow the primer to dry prior to the application of the membrane. As the viscosity of the primer is low, it easily creates adhesion between the membrane and the pipe surface. In addition to that the

primer also acts as a binder for the dust which gets accumulated on the pipe surface even after cleaning.

ALIGNMENT & TORCHING

After RANSBITU-PRIMER, next step is followed; RANSPIPE-CBT 2MM Pipe Wrap Coating is then wrapped around the pipe in spiral fashion and bonded to pipe by thermo fusion process using LPG Torch. An overlap of 10mm is to be allowed. The overlaps are to be sealed by thermo fusion process.

- A second coat of primer is applied over the first layer of RANSPIPE-CBT 2MM and allowed to dry till it becomes tacky.
- RANSPIPE-CBT 2MM second layer is spirally wound over the first layer in spiral fashion and the overlaps are thermo fused.
- An area of 250 mm at the end of the Pipes is to be left uncoated to permit installation and welding. This area is to be coated after welding.
- CAUTION
- Do not over torch the membrane as this will expose the reinforcement and cause damage to it.
- SEALING
- Heat both the overlaps and use round tipped trowel to seal the overlap. Adequate heat is confirmed when a uniform flow of melted bitumen compound flows evenly in a bead that oozes from the applied membrane's edges. Excess compound should be smoothed and pressed into the seam using a heated trowel. Any un-bonded areas must be lifted and re-torched. Do not attempt to reseal by torching the top surface of the membrane. Up stand.

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Flashing details are accomplished using cut pieces of **RANSPIPE-CBT 2MM** in combination with appropriate prefabricated flashing components. The same side lap and end lap rules apply to flashing details as to field membrane.

All angles and abutments should be sealed with extra care to ensure full bonding. All brushes and tools should be cleaned by water immediately after use.

PRECAUTION:

Wash all the tools and tackles with industrial solvent immediately after the application is completed.

HEALTH & SAFETY

Avoid prolonged contact with eyes and skin. For detailed information refer to relevant material safety data sheet.

PACKGING & STORAGE

RANSPIPE-CBT is supplied in (10.00 Mtr L x 1.00 Mtr W) as per given details:-

THICKNESS:-

2MM - (1Mx10M), **Weight** - 2.5 Kg-2.8 Kg

3MM - (1Mx1M), **Weight** - 3.75 Kg-4.0 Kg

4MM - (1Mx10M), **Weight** - 5.0 Kg-5.2 Kg

Store Rolls in a clean dry area protected from direct sunlight and extreme heat and cold. Unopened Rolls can be stored for 12 months.

TECHNICAL DATA

Product 2mm Anti-Corrosive Pipe Wrapping Tape

RAW COAL TAR PITCH

Characterization	Values	Standard
Softening point 0°C	65 121	ASTM D36
Specific gravity	1.30±0.05	ASTM D71
Ash content, %	0.5 Max.	ASTM D2415
Physical state	Solid at ambient temperature	

FILLER

Characteristics	Requirement	Test Method
Fineness: %	Shall pass through	
w/w, minimum	mesh size of 75	
	microns	ASTM D1366
Loss on ignition at 800°C, w/w max.	10	ASTM D1208

PHYSICAL PROPERTIES OF COAL TAR TAPE

Property	Requirement		Test method
	Min.	Max.	
Service temperature (0°C)	-	60	-
Tape thickness m1T1	2.0	2.5	AWWA C-203
Weight average (kg/sq.m/mm)	1.25	-	ASTM D146
Breaking strength in longitudinal direction kN/m	0.7	-	AWWA C-203
Adhesion	AWWA C-203.		
Insoluble content % by wt. in Petrol	93 minimum (procedure given in ANNEXURE-I)		

FABRIC

Type	Description
	The fabric shall be a thin, flexible, uniform mat or tissue composed of glass fibers in an open structure bonded with a suitable resinous inert material compatible with coal tar.

Weight (min) g/m²	40
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Thickness (min.) mm	0.3
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Breaking load in the longitudinal direction.	2.28KN/m (min.)
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Porosity	When related to pressure difference across the sample, the glass fibre fabric shall have porosity of not less than 0.6mm and not more than 1.9mm of water at an average air velocity of 61 m/minute (1 m/sec.)
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Temperature Resistance	The fabric shall be unaffected under load in hot coal tar at 288°C for one minute. It shall not shrink length wise or width wise.
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Pliability test	No cracking shall take place when bent over a mandrel of 3mm radius through 90° arc at a uniform speed of approximately 2 seconds after immersing in water for 10 to 15 minutes.
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PHYSICAL PROPERTIES OF COAL TAR COMPONENT IN THE FINISH TAPE

Property	Requirement		Test method
	Min.	Max.	
Softening point (0C)	65	121	ASTM D36
Penetration at 250C/100g/ 10' mm/5sec	1	9	ASTM D5/BS-4164
Filler %	20	35	ASTM D 2415 or AWWA C-203

TECHNICAL CHARACTERISTICS FOR PIPE WRAP PRIMER

Type	Description
	Fast drying, synthetic, chlorinated rubber-synthetic plasticizer-solvent based
Drying time (tack free)	15 minutes (approx.) (ASTM D1640)
Flash point	> 230C (ASTM D93/D3941)
Volatile matter (105-11 OOC) percent by mass	75 (maximum) (ASTM D2369)
Viscosity, on FORD CUP NO. 4 (4mm nozzle) at 230C	35-60 seconds (ASTM D1200)
DFT	25 microns/coat (minimum)
Coverage (Theoretical)	10 M2/Lit/Coat
Coverage (Practical) @ 25 microns DFT coat	6 M2/Lit/Coat (minimum) (ASTM D344)
Application properties	By brush/ spray should produce an effective bond between metal and subsequent coaltar tape
Adhesion test (after 72 hours)	The primer shall be tested after applying tape coating as per AWWA C-203.

PICTURES/IMAGES AT GLANCE



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