OIL INDIA LIMITED
(A Govt. of India Enterprise)
Udyan Vihar, Narengi, Guwahati,Assam
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Tender No. & Date : GFD7058L16/1L 29.04.2015

Bid Security Amount : INR 0.00 OR USD 0.00
(or equivalent Amount in any currency)

Bidding Type : Single Bid (Composite Bid)

Bid Closing On : 17.06.2015 at 13:00 hrs. (IST)
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Performance Guarantee : Not Applicable

OIL INDIA LIMITED invites Limited tenders for items detailed below:

Item No./ Mat. Code	Material Description	Quantity	UOM
10 99072974	The primer shall consist of a mixture of butyl rubber, synthetic compound and a solvent. The primer shall be applied to the appropriately prepared pipe surface before application of inner layer tape. The function of primer is to provide a bonding medium between the pipe surface and the inner layer tape. The primer shall be quick drying type; the maximum drying time shall not be more than 30 minutes. The primer shall be suitable for brush application as well as machine application. The coverage of the primer shall be 7sq.m per liter and the shelf life of the primer shall be 3 years. The primer shall comply with the requirement of latest DIN EN 12068 (stress class #C) Standard and shall be free from any health hazard during storage and application. The offered primer shall be compatible with the offered tape and shall be suitable for application at temperature ranging from 0º C to 60º C and operation of the coated pipe from temperatures ranging from 0º C to 50º C. Dry film thickness of the primer shall be 40-80 microns. NOTE: THE PRIMER SHALL BE SUPPLIED IN GOOD QUALITY CONTAINERS OF 20-25 LITERS CAPACITY HAVING PROPER CAPING FACILITY. Material Safety Data Sheet shall be supplied with the primer. Properties Unit Value Colour Black Density g /cc >=0.78 Total solid contents % 20-26 Coverage Ltr / Sqm 0.14(average) Application temperature Deg C From # 30 to 60 Drying time at 23 deg C Minutes 10 to 30 Shelf life Years 3	200	L
20	The tape shall be Co-Extruded Polyethylene Tape suitable for cold	500	ROL

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99072975	application OR Extruded hot calendared Polyethylene tape suitable for cold application. The inner tape shall have the butyl rubber adhesive on both sides and the outer tape shall have butyl rubber adhesive on one side only. A non-sticking separator strip (release film) shall be provided in the rolls to eliminate sticking of adhesive when the tape is in roll form.The consistency of the adhesive layer shall be such that under tension it flows on uneven steel surfaces. The adhesive layer shall be completely compatible with the properties of the primer. The inner tape must be self-amalgamating with the inner layer of outer Tape. It shall be standard product of the supplier having established history of excellent performance. PROPERTIES: The physical properties of the tape shall be as given below Parameters Value / Requirement Unit Test Method Application temperature 0º C to + 60º C Deg.C----- Operating Temperature 0º C to + 50º C Deg.C----- Total coating Thickness 2.5 to 3.0 mm ASTM G12 Thickness of Inner layer Tape mm ASTM D1000 Thickness of adhesive facing the steel pipe - 0.178 Thickness of backing (carrier film) 0.305 Thickness of adhesive facing the outer layer tape. 0.152 Total Thickness 0.635 Thickness of the outer layer Tape Thickness of adhesive facing the inner layer tape. 0.305 Thickness of backing (carrier film) 0.33 Total Thickness 0.635 Width of the tape 100 Deviation in width ±1.5 Impact Resistance No holiday with a Should Pass DIN EN (10 impacts at least test voltage of 12068 15 KV Annexure H Indentation Resistance pressure (test condition) at 23º C. 10 N/mm² DIN EN at 50 ºC 10 N/mm² 12068 Remaining thickness. .6(MIN) mm Annexure G Holiday Detection Pass Thermal Ageing resistance 1.25 >= S100 / S0 >= 0.75 . Ratio of - S100 / S70 >= 0.8 tape strength or 1.25 >= S100 / S0 >= 0.75 . S100 / S70 >= 0.8		

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	or - 1.25 >= B100 / B0 >= 0.75 B100 / B70 >= 0.80 Elongation at Break 1.25 >=E100 / E0 >= 0.75 E100 / E70 >= 0.80 Peel Strength layer to layer P100 / P50 >= 0.75 P100 / P70 >= 0.80 A100 / A50 >= 0.75 Peel Strength to pipe Surface A100 / A70 >= 0.80 Specific electrical wrapping resistance Rs100 10 to the power 8 Ohmxm2 DIN EN 12068 Rs100 / Rs70 > 0.8 Cathodic Disbondment at 23ºC 15(max) mm DIN EN 12068 Adhesion strength at 23ºC - Inner layer to primed pipe 0.75 (min) N/mm - Inner layer to existing 0.4 (min) N/mm DIN EN 12068 CTE / 3 LPE / Coal Tar Tape coating Layer to Layer - Inner to Inner + Outer to Inner 1.5 (min) N/mm - Outer to Outer 0.2 (min) N/mm DIN EN 12068 Adhesion strength at 50ºC - Inner layer to primed pipe 0.075 (min) N/mm - Inner layer to existing CTE 0.04 (min) N/mm DIN EN 12068 / 3 LPE / Coal Tar Tape coating Layer to Layer - Inner to Inner+Outer to Inner 0.2(min) N/mm DIN EN 12068 - Outer to Outer 0.2 (min) N/mm LAP shears strength between wrapping and metal surface of existing coating @ 50ºC. 0.05(min) N/mm2 DINEN 12068 Shelf Life 5 years (min) Storage temperature 0º C to +50º C Deg C Tapes to be provided in Rolls of 30 m each for Inner and Outer wrap.		
30 99073129	The Mastic Compound shall be in the form of Putty Filler. The mastic compound shall be suitable filling the irregularities on pipe surface and in areas around weld reinforcements prior to wrapping with anti- corrosion tapes and shall be suitable for molding around irregular profiles such as flanges, mechanical joints and valves to provide a contour suitable for wrapping with anti-corrosion tapes. It shall be compatible with primer consisting of a mixture of butyl rubber, synthetic compound and a solvent normally used with cold applied coating tapes. It shall have high electrical corrosion resistance to protect API quality steel pipe and pipe fittings even without an overlaying coating tape and shall have excellent Cathodic disbondment characteristics and normal temperature. The Mastic compound shall be suitable for cold application in a wide range of climatic conditions. The Mastic compound shall be	10	PAC

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	self-supporting for sealing, filling and caulking applications where protective, waterproof and non-setting mastic is required. COMPOSITION: Petrolatum compound containing inert siliceous fillers and vegetable fibers. It should not contain any volatile organic solvents. TYPICAL PROPERTIES DATA Colour Green/Brown Specific Gravity 1.39 Specific Volume 720 cm3/kg Flash Point >180°C Temperature Range 0°C to 70°C For Application 90°C maximum For Service API quality hydrocarbon transportation pipe and pipe fittings 3kg Blocks PACKING Extruded Rounds Strips 330mm long x 50mm diameter And /or Extruded Triangular Strips 330mm long x 50mm x 50mm x 70mm RECOMMENDED PRIMER Compatible with primer consisting of a mixture of butyl rubber, synthetic compound and a solvent normally used with cold applied coating tapes.Where required use Primer		
40 99074835	HAND WRAPPING TOOL FOR COLD APPLIED TAPE COAT.	1	NO
50 99073130	The coating system consists off two separate ROLL of: i)#An inner layer Visco elastic polymer tape to be spirally wrapped with an overlap of 10mm and ii) An outer layer PVC tape (2 ply type) for mechanical protection to be spirally wrapped with a 50% overlap. The inner tape shall be manufactured from Visco elastic polymer to be applied on steel surface prepared by hand brushing or power wire brushing to a cleanliness of St-2/St-3 The Visco elastic polymer shall be poly isobutylene based with fabric reinforcement. A non-sticking separator strip (release film) shall be provided in the rolls tape to eliminate sticking of Visco elastic adhesives when the tape is in roll form. The consistency of the Visco elastic adhesive layer shall be such that when applied without tension it flows on uneven steel surfaces The adhesive layer shall have self healing properties The tape shall be supplied in ROLL form of the following sizes	35	PAC

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Item No./ Mat. Code	Material Description	Quantity	UOM
	Width: 200 mm to 250 mm Roll Length: 20 meters to 30 meters Thickness of the tape: 1.5 mm Application: By hand wrapping Ambient temperature range: +10 to +500C Steel Surface temperature range: +5 to +700C Properties of the Visco-elastic tape shall be as follows: Property Test Temp. Unit Requirements Test Method Minimum thickness 23 °C mm >1.5mm ISO 21809-3 Annex A Glass transition temperature °C < -600C ISO 21809-3 Annex E Melting Point °C No melting point present ISO 21809-3 Annex E Holiday detection at 5 kV/mm + 5 kV No holiday ISO 21809-3 Annex B Drip resistance Tmax+ 15°C No dripping of compound ISO 21809-3 Annex J Peel strength test to steel and to plant coating before and after thermal ageing resistance and hot water immersion test both for 100 days at Tmax + 20°C 23°C Tmax N/mm >=0.2 N/mm ³0.02 N/mm Cohesive failure Coverage >=95% ISO 21809-3 AnnexD and Annexes N3 and I) Lap shear strength 23 °C Tmax N/mm² >0.02 N/mm² (0.002 Cohesive failure Coverage >=95% ISO 21809-3 Annex L Density 23 °C gm/cc 1-4-1.6 NEN1833 Elongation 23 °C % >100 ASTM D-1000 Moisture absorption 23 °C % <0.03 ASTM D-570 Permeability 23 °C g/m2/24hrs <0.25 ASTM E-96 Specific electrical resistance 23 °C oh-m2 >109 EN12068 Outer wrap PVC tape Outer wrap tape shall be a 2 ply tape manufactured from Polyvinylchloride backing with a butyl rubber based adhesive layer The outer wrap tape shall be fully compatible with the properties of the inner wrap tape.		

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	The tape shall be applied with a 50% overlap and shall bond effectively to the inner visco elastic tape and to itself between its layers at the overlaps The tape shall be supplied in ROLL form of the following sizes Width: 100 mm to 150 mm Roll Length: 30 meters to 40 meters Thickness of the tape: > 0.5mm Application: By hand wrapping Ambient temperature range: +10 to +500C Properties of the outer PVC tape layer shall be as follows Property Test Temp. Unit Requirements Test Method Peel strength - outer layer to outer layer 23 °C Tmax N/mm ? 0.40 - outer layer to outer layer N/mm ? 0.04ISO 21809-3 Annex M - outer layer to backing polyolefin coating 23 °C Tmax N/mm ? 0.2 - outer layer to backing polyolefin coating N/mm ? 0.02 Elongation at break (E100/E0) ISO 21809-3 after thermal ageing test for 100 days at 23 °C ³ 0.9 Annex N.1 Tmax + 20 °C. Peel strength (P#100/P#0) 23 °C ³ 0.7 ISO 21809-3 Annex N.2 and Annex D after thermal ageing test for 100 days at Tmax + 20 °C. - outer layer to outer layer - outer layer to backing polyolefin coating Tape thickness 0.5mm +/- 0.055mm Functional Properties of the coating system The visco elastic tape coating system shall meet the following as installed functional properties Property Test Temp. Unit Requirements Test Method Indentation resistance, pressure N/mm² 1.0 ISO 21809-3 - Holiday detection at 5 kV/mm + 5 kV 23 °C and no holiday Annex H - Residual thickness Tmax mm ? 0.6 Specific electrical insulation resistance ISO 21809-3 - RS100 23 °C W.m² ³ 108 Annex K - RS100/RS70 a ³ 0.8 Cathodic disbondment resistance at 28 days 23 °C and Tmax mm 0 mm, no holiday, self healing ISO 21809-3 Annex F (and Annex B and 18.5.7) Impact resistance 20 °C J (8 ISO 21809-3 Annex G Surface Finish Requirement: Tape shall be able to give adequate adhesion to steel as specified under clause 2.1 when applied over pipe surface prepared up-to a level of St-2/St-3 with no specific surface profile requirement. Application guidelines Detailed instruction for application of visco elastic tape system shall be furnished by the tape manufacturer. Prior to back-fill the applied tape coating shall be subjected to the following tests as per approved QA / QC procedure: (a)## Applied overall thickness using a digital thickness gauge. (b) Holiday testing at 15KV.		

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	(c) Peel / Adhesion test as per Clause 2.1 During start up of application, tape manufacturer shall depute his representatives to demonstrate / guide the field applicators of the Contractor for a minimum length of 500 meters to ensure that the coating is applied correctly. Test Certificate: Visco Elastic tape system tape shall be certified from International European / American reputable Independent test lab for all properties mentioned above. Track Record: Tape manufacturer to furnish details of the tape being offered indicating the supply record of the offered brand of tape to Petroleum & Gas pipeline Operators like (IOCL, ONGC, Shell, GASCO, Gaz- de France, Saudi Aramco etc) during last 7 years Quantity supplied Brand Name and type of coating material. Marking: Following shall be marked clearly on the packing in ENGLISH Ø##### TYPE / TRADE NAME. Ø##### WIDTH, LENGTH OF THE TAPE IN METRIC UNIT Ø##### REFERENCE NUMBER / BATCH NUMBER Ø##### DATE OF MANUFACTURING, SHELF LIFE OF TAPE Ø##### HEALTH HAZARDS ASSOCIATED & HANDLING INSTRUCTION. Packaging All material shall be supplied in unit quantities, which can be reasonably handled by the applicators The packaging shall be such that during transportation and storage at the Contractor#s store and subsequent transportation and handling at site, full quantity and performance of the material is retained Data to be furnished by Tape Manufacturer: The tape manufacturer shall submit the following information along with his offer: Maximum exposure time of applied tape before backfilling. Recommended time lag (Maximum and minimum) between application of Visco elastic tape and the outer 2 ply tape. Application procedure of the tape system Application procedure of moldable Visco elastic putty Application techniques to be followed for coating on clamps/sleeves and heavily corroded areas. Coating repair method Compatibility with impressed current Cathodic protection system Field test and inspection procedure of the coating including list of instrument for field-testing		

Special Notes : 1. **THIRD PARTY INSPECTION:**

In the event of an order , item nos. 20,30 & 50 shall be inspected and tested by any one of the OIL approved Third Party inspection agencies i.e. M/s.Llodys, M/s.IRS, M/s.B.V. and M/s.Rites & M/s DNV in presence of OIL Engineers. Charges for the same shall be quoted separately which will be loaded for bid evaluation.

Charges, if any ,shall be quoted separately (as per Format below) and the same shall be considered for bid evaluation. In case TPI charges NIL, Bidder must categorically mention the same in their offer.

2. **Marking:**

Following shall be clearly marked on the material in ENGLISH.

TYPE / TRADE NAME WIDTH; LENGTH OF THE TAPE IN METRIC UNIT / REFERENCE NUMBER / BATCH NUMBER MANUFACTURING DATE, SHELF LIFE OF TAPE. HEALTH HAZARDS ASSOCIATED & HANDLING INSTRUCTION.

3. **Packaging:**

All material shall be supplied in unit quantities, which can be easily handled by the applicators. The packaging shall be such that during transportation and storage at owner's stores and subsequent transportation and handling at site, full quantity and performance of the material is retained.

4. **Data to be Furnished:**

The supplier shall submit the following information along the supplied material.

i. Maximum exposure time of applied tape before backfilling. ii. Recommended time lag (Maximum and Minimum) between application and cleaning of the carrier pipe and Tape. iii. Application procedure of the tape system i.e. inner tape & Outer tape.

5. **Application Guideline:**

Tape shall be able to give adequate adhesion to steel when applied over pipe surface prepared up to a level of St 2/st.

Supplier to provide all technical details, application procedure and guidelines for use of coating system along with the supply of materials. Detailed instructions for application of tape by hand application / machine application shall be indicated clearly.

The supplier shall provide assistance in demonstrating the proper method of application of coating system as required by OIL without any extra charge. During initial application of approximately 100 m length of pipeline supplier shall depute his representative / applicator to demonastrate / guide the field applicator so that allocated material inner tape, outer tape, is applied as per material guidelines to achieve the desired properties / protection of pipeline.

6. **Compatibility of Environment:**

The coating system to be supplied shall be compatible with the environment and shall be suitable for application in RoW having soil of varied characteristics.

7. Material Safety Data Sheet [MSDS] to be provided.

8. Bidder should be Manufacturer of the items offered (OEM) or Manufacturer's authorised agent with valid certificate.

9. The bidder must provide documentary evidence of manufacturing of the specified material / similar material since last 5 years.

10. The bidder must provide evidance of supplying similar material to organizations for use in oil/gas pipelines along with performance certificate from client.

11. The minimum FOB/FCA charges incase of partial order for reduced quantity / terms shall have to be indicated by the bidder. In case this is not indicated specifically, the charges quoted would be prorata calculated and the same will be binding on the bidder.

12. Bidder other than OM (Original Manufacturer)/OEM (Original equipment manufacturer) must submit proper valid authorisation certificate from OM/OEM failing which offer shall be liable to rejection.

13. Please mention clearly in your quotation the net weight, gross weight and volume, Indian agent's name and its commission, payment terms, Ocean freight/air freight charges, port of loading, delivery period, country of origin with manufacturer's name, etc.

14. NIL Custom Duty shall not be applicable against this tender. Indigenous Bidders are requested to quote their Non Deemed Export prices.

15. Annexure-I is not enclosed separately.
Please refer to General terms and conditions (Pipeline sphere), Annexure-I, in www.oil-india.com under Global tenders.
Tender will be governed by the same.

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Tender issued to following parties only:

Slno	V_Code	Vendor Name	City/Country
1	103120	DENSO GmbH	LEVER KUSEN
2	103121	SEAL FOR LIFE INDUSTRIES BVBA	OEVEL (WESTERLO)
3	103122	ALTA ALTENE SRL	BAGNOREGIO
4	210015	AMCHEM PRODUCTS PVT.LTD.	NOIDA
5	210016	STOPAQ INDIA	MUMBAI
6	210017	CANUSA CPS	MUMBAI
7	210018	CORR-RAD	MUMBAI
8	210955	SEAL FOR LIFE INDIA PRIVATE LTD	VADODARA