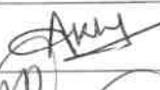
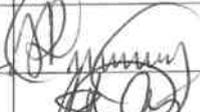


**ANNUAL RATE CONTRACT FOR RUBBERLINING
MAINTENANCE**

Tender no:		Project No-
Revision:	1st	Revised date: 08 Sept 2022

NAME	TITLE	Co. No.	SIGNATURE	DATE
COMPILED – RECOMMENDATION				
Mwandla Sethenjwa	Maintenance Technician	503646	 503646	20/09/22
APPROVAL TO PROCEED				
Akhil Kumar Dwivedi	Mechanical Engineer	503700		20 Sept 2022
Sifiso Majola	Senior Maintenance Manager	15480		20/09/2022
S Khan	SHREQ Manager- acting	503295		
Sam Mbuyazi	General Manager	500441	 500441	22/09/2022

TECHNICAL SCOPE OF WORK

<u>TABLE OF CONTENT</u>	Page No
1 Background and Present Situation	3
2 Legislation, Standards and Codes of Practice	3
3 Foskor specifications	4
4 Project Requirements	6
5 Plant location	6
6 Drawings Technical Data	6
7 Scope of Work	7
8 Work Methodology	7
9 Health and Safety	7
10 Quality Management	8
11 Company profile	9
12 Insurance	9
13 Work break done structure	10
14 Tender acceptance	10
15 Document control	10
16 Key personnel	11
17 Rubber lining data sheets	11
18 Pricing Schedule	17

1. Background and Present Situation

The Scope of Work ("Works") calls for the successful completion of the repairs to rubber lining inside the premises of Foskor, and all the relevant associated works that is required to make such a facility functional for its purpose.

The project will be undertaken in terms of the latest revisions and amendments of all relevant legislation, standards, and Codes of Practices. The vendor will complete the Works in accordance with all statutory obligations, municipal regulations, and all other relevant requirements. The Vendor is specifically reminded of the requirements in terms of the Occupation Health and Safety Act, Act 85 of 1993 and latest amendments in terms of this project.

2. Legislation, Standards and Codes of Practice

Latest revisions or amendments of the listed codes and specification are applicable to this contract:

Number	Title / Description	Revision
Act 85 of 1993	Occupational Health and Safety (OHS Act)	Latest
BS 6374-5	Specification for lining with rubbers	Latest
DIN 28053	Chemical apparatus; metallic substrates and semi-finished products to	Latest
DIN 28055-1	Organic linings for application to metallic components of chemical	Latest
DIN 28055-2	Organic linings for application to metallic components of chemical testing	Latest
DIN 53504	Determination of tensile stress / strain properties of rubber	Latest
DIN 53505	Testing of rubber, elastomers, and plastics shore hardness A&D	Latest
DIN 53516	Testing of rubber, elastomers; determination of abrasion resistance	Latest
DIN 53531-1	Determination of the adhesion of rubber to rigid materials by the one – plate method	Latest
DIN53531-2	Determination of adhesion of rubber to rigid materials using conical ended cylinders	Latest
DIN 55928-4	Corrosion protection of steel structures by the application of organic or metallic coatings perpetration and testing of surfaces	Latest
ISO 8503-1&2	Preparation of steel substrates before application of paints and related products	Latest
SS-000000-M-002	Rubber lining for steel equipment and piping (Foskor Sulphos)	Latest

All work listed in this scope of work shall be completed but not limited to in accordance with the specifications and codes as listed above. It is the responsibility of the Vendor to be on possession of the latest standards and codes as listed above in the execution of this project.

3. Foskor Specifications

All work listed in this scope of work shall be completed in accordance with the specifications and codes as listed below.

ENGINEERING QUALITY/STANDARDS INDEX		
Spec. No.	Description	
FC 005	General Earth Works to Plant and Building	
FC 016	General Road Works	
FC 021	General Specification for Terrace Construction	
FD 001	Design Criteria for Structures	
FG 001	General Requirements for Projects	
FL 001	Ladders and walkways	
FM 001	General Mechanical Specification	
FM 002	Rubber lining of Vessels and Piping	X
FM 003	Welding of Fabricated Equipment	X
FM 273	Fire Tube Waste Heat Boiler	
FM 432	Insulation of Vessels and Piping	
FQ 001	General Engineering Quality Requirements	X
FQ 002	Non-Destructive Testing	X
FS 001	Fabrication and Erection of Structural Steel	
FS 002	Specification of Roof and Side Cladding	
FT 001	Trestles and Access Platforms	
FV 001	Requirements Vessels, Tanks and Heat Exchangers	
FY 001	Design/Fabrication of Piping	
Painting Specifications		
MC 001	Colour Coding Richards Bay	X
MC 002	Scope of Corrosion Protection Richards Bay	X
MC 003	Painting High Spillage Areas	
MC 004	General Plant Painting Specification Low Temperature	X
MC 005	General Plant Painting Specification High Temperature	X
MC 006	Repair Damaged Steel Work	
MC 007	General Steel Denso Wrap System	
MC 008	Pipe/Flange Protection Denso Wrap System	
MC 009	General Plant Protection High Corrosive Areas	
MC 010	Painting Tank Grillage	
MC 011	Internal Painting of Tanks with Demineralised Water	

Electrical Specifications	
E 001	Low and Medium Voltage Motors
E 002	400V AC Distribution Switchgear & MCC's
E 003	Industrial Electrical Installations
E 004	Low Voltage Power and Control Cable
E 005	Electrical Design Guidelines
E 006	Low Voltage Distribution Boards
E 007	A. C. Variable Speed Drive Systems
E 008	Luminaries
E 008 -01	Luminaries
E 012	Standard Specifications for Soil Resistivity Survey
E 014	11 kV Indoor Switchgear
E 015	3,3 kV Indoor Switchgear and MCC's
E 016	Distribution Transformers
E 017	Batteries and Charges
E 018	Static Uninterruptible a.c. Power Supplies
E 019	Diesel Generators Sets
E 021	Soft Start Equipment
E 022	Review of 132kV. Harmonic Filter and Power factor Correction System
E 023	Earth and Lighting Protection
E 024	Lighting and Small Power
E 025-01	Cable Ladder Rack and Accessories
E 025-A	Cable Ladder Rack and Accessories and Installation Materials
E 026	Medium Voltage Cables - 11k (XLPE)
E 027	11kV/400V Construction Power Supply
E 028	Signage for Substations
E 029	Low Voltage and Medium Voltage Cable reticulation Installation
E 030	Operating Requirements for Electrical Room Layout
E 031	Electrical Part of Package Unit
	Industrial Electrical Installations
	Synchronous Generator
	Turbine Generator Synchronization and control Panel
	33kV/11kV400V Construction Power Supply
	Substations 02, 03, Blower room and Emergency Generator room - Electrical and HVAC Installation and Architectural

Where there is contradiction between the Foskor Specification (Paragraph 3) and Legislation, Standards and Codes of Practice, Foskor specifications must take precedence. It is the responsibility of the Vendor to highlight to Foskor the contradictions on the above.

4. Project Requirements

This specification covers the general requirement for the supply and application of rubber materials, primers, and all adhesives necessary for the rubber lining on site or in workshop of carbon steel tanks, hoppers, vessels, and large size pipes and ducts.

5. Plant Location

All work related to replacement will happen at

FOSKOR – RICHARDS BAY DIVISION,
21 JOHN ROSS PARKWAY,
RICHARDS BAY,
3900
SOUTH AFRICA

6. Drawings and Technical Data

Drawing No.	Title / Description	Revision
N/A	N/A	N/A

7. Scope of Work

The scope of supply shall be complete and shall include but not be limited to:

- all necessary materials needed for the rubber lining either on site or in the Vendor's workshop.
- all tools, temporary equipment and consumables needed to carry out the application and vulcanization on site in the works.
- Inspection equipment and instruments for checking the rubber after installation.

7.1 Sandblasting on site or in Vendor's workshop.

Surfaces to be rubber lined shall be sandblasted to SA 2½ grade (as per DIN 55928 - Part 4) to achieve a level of roughness "Medium G" as per ISO 8503-1 Standard with a minimum depth (Rz) of 50 µm.

7.2 Application and vulcanization of rubber lining on site or in Vendor's workshop.

7.3 To ensure that the equipment is fully suitable for rubber lining and vulcanization the Vendor shall provide the following assistance to the engineering and fabrication of the equipment:

- review of detailed drawings for which the Vendor shall give his approval from a rubber lining point of view.
- inspection of the equipment on site or in the vessel manufacturer's workshops to ensure that inside surface finish is acceptable.
- Defining the required nozzles for venting and draining during vulcanization.

7.4 All items or implements that will be required on a temporary basis to carry out the rubber lining and vulcanization.

This includes but is not limited to:

- transport and handling equipment to carry the rubber and rubber lining equipment.
- handling of the items to be rubber lined or vulcanized in case it should be needed.
- handling of the flanges for vulcanization.
- shelter with worktables for rubber preparation.
- temporary piping and flanges for the vulcanization.
- supply and laying of temporary lagging for vulcanization.
- supply of autoclaves similar or bigger than 3m x 4.5m; 2.4m x 7m & 1.9m x 14.5m
- cooling devices to keep the temperature of the steel within acceptable limits during warm spells and/or protection from the sun.
- cool storage.
- etc.

This list is not exhaustive. The Vendor shall state clearly in his quotation what items are not included. Any other items which are necessary and have not been excluded in the quote shall be considered as part of the Vendor's scope.

8. Work Methodology

- The Vendor shall submit a detailed work methodology as a part of the tender.
- The methodology shall contain sufficient detail to assure Foskor that the Vendor has a detailed understanding of the work and has the staff and resources to support the contract.
- A final work methodology shall be verified and approved by Foskor on contract award.
- Failure to submit this methodology at the time of tender will result in the disqualification of the tender.
- A final, detailed work methodology shall be submitted **within 7 working days of contract award.**

9. Safety and Health

- The Vendor need to comply with section 37.2 agreement of the O H S Act 85 of 1993 and sign the section 37 (2) Agreement at the safety department.
- The Vendor to submit SHE Plan for approval to the Safety Department prior to commencement.
- The Vendor shall comply with all Foskor Regulations and Safety Standards esp. COP6.
- The Vendor shall fully comply with the OHS Act (Act 85 of 1993) esp. (23).
- The Vendor must provide a site store for his equipment for period of shut.
- The Vendor must ensure housekeeping is conducted daily and on completion of work. The vendor must remove all their equipment within 48 hours after project completion / closure
- The Vendor shall provide appropriate safety procedure and written work instructions to the labor force to minimize the risk of injury.
- The Vendor on entering site, must wear Foskor minimum required PPE at all times namely safety glasses, acid resistant overalls, safety harnesses (on heights), safety boots or steel cap gumboots, ear protection and gas masks (Half mask single filter – screw type with filter type A1B1E1K1 – North Safety Product or similar approved product) and goggles (Uvex ultra vision – W1663459B – DIN CE 0196) preferably in a pouch. Should a Vendor be found on site without the above-mentioned safety clothing, he will be removed from site and will not be allowed to return.
- The Vendor shall provide appropriate safety procedures and written work instructions to the labor force to minimize the risk of injury.
- The Vendor shall ensure all his personnel have attended the Safety Induction, by Foskor before they enter site.
- The Vendor must ensure good housekeeping and must keep the site clean of scrap and rubbish on a daily basis. All rubble should be transported to the Foskor designated area or bins. Hazardous waste will be disposed of accordingly.
- Safe working procedure
- The Vendor shall demarcate the relevant work area. The Vendor shall supply and erect an appropriate name board with all relevant information and contact details at the work area.
- The job risk assessment shall be carried out at the start of each shift. This risk assessment shall cover all activities planned for the relevant shift. The risk assessment shall be submitted to Foskor at the start of each day shift and each night shift.
- The surrounding area may contain amounts of weak or strong acid. The Vendor must take note of the area where the work will be executed.
- The Vendor must take safety precautions when working on site.
- The Vendor must remove all their equipment within 48 hours after project completion. Work Methodology.
- The methodology shall contain sufficient detail to assure Foskor that the Vendor has a detailed understanding of the work and has the staff and resources to support the project.
- A detailed work methodology shall be submitted within a day of contract award.
- A final work methodology shall be verified and approved by Foskor. The vendor is welcome to propose new development that may be of benefit to both Foskor and the Vendor. All will be reviewed and discussed before the award of contract.

10. Quality Management

The Vendor must adhere to Foskor's Quality Management System and Specifications incorporated in this Tender Document.

➤ Quality Assurance

- 10.1. It is a requirement of the contract that the Vendor maintains an effective documented system for the control of product quality. Proof of compliance with a recognized quality assurance standard, such as ISO 9000, should be submitted with the Vendor's tender.
- 10.2. The Vendor's Quality Assurance Dept. Manager shall be responsible to a senior executive only and not be under the control of persons responsible for production.
- 10.3. The Vendor's Quality Assurance Manager is regarded as the principal link between the Vendor and Foskor in all matters affecting quality.
- 10.4. The Vendor's Quality Manager shall have access to the Vendor's offer document and to all other associated specifications, drawings, and documents necessary for the satisfactory execution of the project.

➤ Planning

- 10.1. The Vendor's planning system shall demonstrate both recognition of the quality requirements of the project and an organized approach for their achievement, by ensuring that quality requirements are defined and satisfied throughout all phases of the project.
- 10.2. To provide assurance that the above-mentioned activities are performed under controlled conditions. Instructions defining complete processing and inspection requirements must be documented in the Vendor's quality management system. These documents shall be made available to Foskor.

➤ Quality Control

- 10.1. The Vendor shall produce a Quality Control Plan (QCP) and shall include all those activities necessary for the control of quality of work.
- 10.2. At each milestone, Foskor Limited must approve the quality and standard of work being produced. If Foskor is dissatisfied with the quality of work being produced, the Vendor will have to redo the work to a standard that is acceptable to Foskor Limited. This will be for the Vendors account. Foskor Limited will not entertain any claims arising from this.
- 10.3. At each hold and witness point all work shall be suspended until the specified inspection has been completed and the QCP updated and signed accordingly by Foskor or it representative.
- 10.4. It shall be the responsibility of the Vendor to give Foskor timely notice of hold and witness points requiring their intervention as per the final QCP.
- 10.5. Failure to submit the QCP could be a cause for disqualification of the tender.
- 10.6. A detailed QCP shall be submitted **within 1 week of contract award.**

➤ Guarantee

The Vendor's guarantee shall cover the materials used for the rubber lining of the vessels, tanks, mechanical equipment, piping and ducts and their application in accordance with all the requirements (capacities, performances, etc.) which are detailed in this specification and in the equipment, data sheets and fluid list.

- 10.1. The Vendor shall assume full responsibility for his supplies and their application, which involves both a mechanical guarantee as well as a guarantee on the chemical resistance of the rubber linings which have been supplied and applied by the Vendor.
- 10.2. The guarantee shall cover the supplies of the Vendor and his sub-contractors.

- 10.3. In case of repair and/or replacement of damaged areas which have to be made under the Vendor's guarantee, the Engineer's approval shall be required, in writing.
- 10.4. The guarantee shall cover all costs involved including manpower, transport, and packing.

11. Company Profile

Tenderers are to submit an extensive portfolio indicating their experience and expertise with reference to similar type of manufacturing, more especially in the same environment and similar systems.

12. Insurances

The Vendor shall include in their tender, details of warranty for their service performance and workmanship for a period of 12 months from the date of installation or 18 months from the date of final hand over at Foskor site.

13. Work Breakdown Structure (WBS)

- The Tenderer will be responsible for providing a detailed project schedule for any job with a duration of more than 3 days in form of a bar (Gantt) chart or equivalent. This must be submitted before that particular job is started.
- It is advisable that preliminaries and general are broken down into fixed, time and value related items. This will assist in contract administration. The Tenderer is to note that if they decide on sub-contracting works, no contractual obligation is held between the third company and Foskor (Pty) Ltd.
- Foskor's contractual obligation is limited to the Tenderer and the Tenderer is answerable to Foskor in the event of default by the Sub-Vendor.
- A detailed WBS shall be submitted **within 1 week of contract award.**

14. Tender Acceptance

Note that Foskor can reject any tender based on technical and commercial evaluation.

15. Document Control

All drawings and data, including Supplier's standard drawings shall be checked by the Supplier for accuracy, clarity, completeness and conformance to the applicable codes, specifications etc., before submitting to Foskor.

Documentation required with tender

The following documentation must be submitted with tender. This information is required in addition to any documentation required by the Commercial Conditions

- 15.1. Submission of offer as per activity breakdown listed at Annexure3, Payment schedule, payment term and condition.
- 15.2. Company profile which indicates having experience of manufacturing similar type of equipment
- 15.3. Inclusion and exclusion of vat on quote.
- 15.4. Validity of offer and any price variation with rate of exchange.
- 15.5. Delivery schedule.

Failure to submit all of the above information at the time of tender may be cause for disqualification of the tender.

- 15.6. All documentation listed above must be submitted to Foskor. The time frames for the delivery of all documentation will be discussed on order award.
- 15.7. Reproducible drawings shall be mailed or delivered folded.
- 15.8. Each drawing and document shall be identified by: -
- 15.9. Title, giving the description of contents, shall conform to the title as shown on the document.
- 15.10. Official name of Supplier's company.
- 15.11. Drawing number, latest revision by means of a number of letters in a triangle with that number or letter adjacent to the alterations.
- 15.12. Brief description in tabular form of each revision.
- 15.13. On material parts, list the material standard for all pressurized parts.
- 15.14. Equipment Number(s), Project Name and Client name.
- 15.15. Transmittal of Supplier's drawings and data shall be accompanied by a transmittal letter, showing Purchase Order number, item/tag number(s) and a list of drawings and data submitted. This transmittal letter shall be used as a listing of documents and data only and not for addressing any technical queries/information.
- 15.16. Documents must be marked and issued Final Certified showing as-built condition, i.e., as shipped.

Drawings and data supplied shall be rejected if not in accordance with the requirements as laid down in this specification.

16. Key Personnel

The Vendor shall submit (as a part of the tender) a project organ gram identifying key persons for the following functions:

- Project Manager / Leader
- Site Manager / Supervisor (For site installation only)
- Quality Assurance / Control Inspector
- Health and Safety

These persons shall not be substituted without prior client (Foskor) consultation and approval. Failure to submit this information at the time of tender could lead to disqualification of the tender.

17. RUBBER LINING DATA SHEETS

Values that are shown in these data sheets are for guidance only.

The Vendor shall complete the data sheets with the actual characteristics of his products.

* Star Indicates "to be completed by Vendor"

See tables below

HARD RUBBER

PARAMETER	RATING	STANDARDS N°
1. Quality (name)	Hard rubber	
2. Trade name	*	
3. Description	Black, graphite-filled hard rubber based on natural rubber for application on site and steam curing. Compounds: Rubber:55 % Filler: 45 %	
4. Thermal resistance (°C)	- 15 to + 100	
5. Chemical resistance	<ul style="list-style-type: none"> · <u>Alkalies</u> All concentrations · <u>Acids</u> All concentrations (except high concentration of hydrofluoric acid, sulfuric acid, nitric acid, and chromic acid). · <u>Solvents</u> Only partly resistant against hydrocarbons and alcohols. · <u>Oils and greases</u> Mineral oils and greasy oils include ASTM-oil 1-3. Partial resistance against aromatic oils. · <u>Oxidizers</u> Partly resistant against low concentrations of oxidizers at temperature up to + 50°C. 	
6. Specific gravity	1.31	DIN 53 479
7. Hardness cured (shore D)	70 °D ± 5°	DIN 53 505
8. Tensile strength (N/mm ²)	> 20	DIN 53 455
9. Elongation at tear (%)	> 2	DIN 53 504
10 Water absorption after 72 hours	*	
11 Rubber-to-metal bonding strength at 20°C	> 30 N/mm ² when steam or hot water cured > 100 N/mm ³ when autoclave cured	DIN 53 531 (PT2)
12 Abrasion resistance (mm ³)	-	DIN 53 516
13 Recommended storage life at + 5°C (days)	180 days after date of loading into refrigerated container (*)	
14 Curing fluid	Saturated steam	
15 Curing time (hrs.)	4 - 6 } for guidance only	
16 Curing pressure (kg/cm ² eff.)	> 1.8 } to be confirmed/adapted	
17 Curing temperature (°C)	115 - 130 } *	

18 Bonding coats - type - number - storage life	* * 180 days after date of loading into refrigerated container at + 5°C (*)	
19 Spark Test Voltage for 4 mm lining thickness (kV)	*	

SOFT RUBBER

PARAMETER	RATING	STANDARDS N°
1. Quality (name)	Soft rubber	
2. Trade name	(*)	
3. Description	Black soft rubber grade, based on butyl rubber, good resistance to abrasion also at higher temperature, for application on site and steam curing. Compounds: Rubber:44 % Fillers: 56 %	
4. Thermal resistance (°C)	- 45 to + 120	
5. Chemical resistance	<ul style="list-style-type: none"> · <u>Alkalis</u> All concentrations · <u>Acids</u> All concentrations (except nitric acid, concentrated sulfuric acid, chromic acid). · <u>Oils and greases</u> Not resistant to mineral oils and greases. Partial resistance to grease from plants and animals. · <u>Oxidizers</u> Good resistance up to medium concentrations. 	
6. Specific gravity	1.29	DIN 53 479
7. Hardness cured (shore A)	65° A ± 5°	DIN 53 505
8. Tensile strength (N/mm ²)	> 5°	DIN53 455
9. Elongation at tear (%)	> 300	DIN 53 504
10 Water absorption after 72 hours	*	
11 Rubber-to-metal bonding strength at 20°C	> 10 N/mm ²	DIN 53 531 (PT1)
12 Abrasion resistance (mm ³)	± 450	DIN 53 516
13 Recommended storage life at + 5°C (days)	180 days after date of loading into refrigerated container (*)	

14 Curing fluid	Saturated steam or Hot water	
15 Curing time (hrs.)	4 - 8 } for guidance only	
16 Curing pressure (kg/cm ² eff.)	> 1.8 } to be confirmed/adapted	
17 Curing temperature (°C)	115 – 130 } *	
18 Bonding coats - type - number - storage life	* * 180 days after date of loading into refrigerated container at + 5°C (*)	
19 Spark Test Voltage for 4 mm lining thickness (kV)	*	

SELF CURING SOFT RUBBER

PARAMETER	RATING	STANDARDS N°
1. Quality (name)	Self-curing soft rubber	
2. Trade name	*	
3. Description	Black soft rubber grade, based on butyl rubber self-curing for application on site Compounds: Rubber:57 % Fillers: 43 %	
4. Thermal resistance (°C)	- 45 to + 100	
5. Chemical resistance	<ul style="list-style-type: none"> · <u>Alkalis</u> All concentrations · <u>Acids</u> All concentration (except high concentration of hydrofluoric acid, sulfuric acid, nitric acid, and chromic acid). · <u>Solvents</u> Good resistance to polar solvents. Not resistant to mineral and aromatic solvents. · <u>Oil and greases</u> Not resistant to mineral oils and greases. Partial resistance to grease from plants and animals. · <u>Oxidizers</u> Good resistance up to medium concentrations 	
6. Specific gravity	1.17	DIN 53 479
7. Hardness cured (shore A)	60 °A ± 5°	DIN 53 505
8. Tensile strength (N/mm ²)	> 5	DIN 53 455
9. Elongation at tear (%)	> 300	DIN 53 504
10 Water absorption after 72hours	*	

11 Rubber-to-metal bonding strength at 20°C	> 7 N/mm ²	DIN 53 531 (PT1)
12 Abrasion Resistance (mm ³)	± 620	DIN 53 516
13 Recommended storage life at + 5°C (days)	180 days after date of loading into refrigerated container (*)	
14 Curing fluid	Air	
15 Curing time (hrs.)	At 30°C 1000 hrs. At 60°C 72 hrs. } for guidance only	
16 Curing pressure (kg/cm ² eff.)	am. } to be confirmed/adapted	
17 Curing temperature (°C)	amb. } *	
18 Bonding coats - type - number - storage life	* * 180 days after date of loading into refrigerated container at + 5°C (*)	
19 Spark Test Voltage for 4 mm lining thickness (kV)	*	
When autoclave cured:		
20 Curing time (hrs.)	4 - 8	
21 Curing pressure (kg/cm ² eff.)	> 1.81	
22 Curing temperature (°C)	100 - 130	

BOQ

Sl.No	Item Description	UOM	Price/Each	Total
1	Safety Equipment/PPE per annum	Yr/Lump		
2	Site establishment, includes safety inductions, medical, site office, telephone, stationary, office furniture and consumables.	Yr/Lump		
3	Remove old Rubber Single layer	m ²		
4	Remove old Rubber Double layer	m ²		
5	Surface Preparation - Sand blasting to SA 2½ grade (as per DIN 55928 - Part 4) to achieve a level of roughness "Medium G" as per ISO 8503-1 Standard with a minimum depth (Rz) of 50 µm.	m ²		
6	Rubber Line of pre vulcanised Bromo Butyl 50 Shore A - 3, 4 , 5 mm thickness	m ²		
7	Rubber Line of un- vulcanised Bromo Butyl 50 Shore A - 3, 4 , 5 mm thickness			
8	Rubber Lining of un-vulcanised 50 Shore D 3, 4, 5mm thickness Ebonite	m ²		
9	Rubber Line of pre vulcanised Neoprene rubber - 3, 4 , 5 mm thickness	m ²		
10	Rubber Lining of pre-vulcanised 3,4, 5mm Ebonite	m ²		
11	Steam Curing in Autoclave at Vendors shop	m ²		
12	Spark test	m ²		
13	Transportation - High Lift Truck	Per Trip		
14	Transportation - bakkie	Per Trip		
15	Dehumidifier	Per Day		
16	Supervisor	Hr		
17	Rubber Liner	Hr		
18	Assistant	Hr		

END OF THE SCOPE OF WORK

Technical Evaluation Criteria for this Tender which excludes Commercial Evaluation:

Evaluation Criteria (Technical)				
No.	Technical Criteria Description	% Contribution	Proof/Documents to be submitted	Notes
1	Mandatory - Compliance with Scope of Work Specifications - Weight not to be less than 20%			
a)	Tender returnable documentation submitted for technical evaluation. Scoring: Tender returnable documents not submitted =0%, All returnable documents received = 20%	20%	Provide . Quality Control Plan (QCP) and Method statement documents	
2	Reliability - Supplier reliability to complete the project safely in time, quality and budget - Weight not to be less than 60%			
a)	Suitability of methodology in alignment with safe work procedure and care of environment. Scoring: If no method statement submitted =0%, If method statement submitted and in alignment with safety work procedure = 20%	20%	Provide rubber lining specific method statement demonstrating safe procedure	
b)	Suitability of quality control plan in alignment with acceptable standards and best practice for the execution of works. Scoring: If no Quality Control Plan submitted = 0 %; If Quality Control Plan submitted and in alignment with rubber repairs= 20%	20%	Provide rubber lining QCP demonstrating control of quality to achieve desired product.	
c)	Company capacity regarding maintenance team and resources in alignment with rubber lining environment and safety. Scoring: Organogram not provided = 0%; Organogram provided =20%	20%	Provide project team organogram indicating names, positions and trade.	
3	Competence - Supplier experience & team competence at Foskor Richards Bay - Weight not to be less than 20%			
a)	Supplier previous experience in similar work, environment, magnitude and complexity. Scoring: Similar Experience < 5 years = 0%, Similar Experience >= 5 years = 20%	20%	Provide record of experience demonstrating similarities to previous work.	
Total Technical Score:		100		
NOTE: For the bid to be considered the bidder needs to score 70% and above, and comply to all mandatory requirements				

