

केन्द्रीय पेट्रोकेमिकल अभियांत्रिकी एवं
प्रौद्योगिकी संस्थान (सिपेट)

(पूर्व में केन्द्रीय प्लास्टिक्स इंजीनियरिंग एवं तकनीकी संस्थान)

मुख्यालय, पीडीआई सेल

राजमन एवं पेट्रो रासायन विभाग,

उत्पादन एवं परिवहन मंत्रालय, भारत सरकार,

राष्ट्रीय औद्योगिक इस्टेट, गुल्दी, चेन्नई - 600 032

दूरभाष : 044-29813708 (Direct) / 044-22254780 (Extn-502)

ई-मेल : pdiho@cipet.gov.in



CENTRAL INSTITUTE OF PETROCHEMICALS
ENGINEERING & TECHNOLOGY (CIPET)

(Formerly Central Institute of Plastics Engineering & Technology)

Head Office, PDI Cell

Department of Chemicals & Petrochemicals,

Ministry of Chemicals & Fertilizers, Govt. of India,

TVK Industrial Estate, Guindy, Chennai - 600 032

Phone : 044-29813708 (Direct) / 044-22254780 (Extn-502)

E-mail : pdiho@cipet.gov.in

CIPET / QF / 7741

WO Centre: CIPET-Kochi.

Camp at: Tata Metaliks Limited, Kharagpur.

Name of the Inspecting Official: Jitender Singh

Code No. : 1677

INSPECTION REPORT

1.	Report No: IB00423240502020	Date: 20.09.2023
2.	Name of the Indenter / Consignee with detailed address	Office of the Executive Engineer, Project Division kallappana, Vellayamkudy P.O. PIN 685515, Kerala Water Authority.
3.	Indenter Order No. & Date and Extension (if any)	539/DB1/2023/Pr.D-KTPA-MTPZA Dated: 07.09.2023
4.	Details of the Consignee	Executive Engineer, Project Division kallappana, Vellayamkudy P.O. PIN 685515, Kerala Water Authority.
5.	Name of the Supplier / Contractor	M/s. Kurian Prasad Erumbay(H), Kunnackal (PO), Muvattupuzha, 682316
6.	Supplier / Contractor P.O. No.	P.O. No.: NIL Date : 15.07.2023
7.	Name and address of the Manufacturer / Inspection site	M/s. Tata Metaliks Limited, Vill. Mahespur, P.O. Samraipur, Kharagpur, Dist. West Midnapore, West Bengal.
8.	Manufacturer / Supplier Inspection Call Letter No. & Date	TML/CIPET/PDI/2023-24/181, Dated: 11.09.2023
9.	PDI Cell Assignment No. & Date	CIPET/HO/2023244427 Dated: 12.09.2023
10.	Date of inspection	Initiated on: 19.09.2023 Completed on: 19.09.2023
11.	Any other information	Name of Work: Jal Jeevan Mission (JJM) -WSS - to Santhanpara, Rajukumary (Part) and Senapathy (Part) Panchayaths in idukki District - Package II Clear Water Pumping Main, sump cum Pump House, GSLR in Senapathy GP - Pipeline Work. *Manufacturer's CML No. 5508259

DETAILS OF THE STORES

Sl. No.	Description of the items	Quantity as per order	Quantity inspected earlier (Cumulative)	Quantity offered for inspection	Quantity Accepted	Quantity Rejected	Quantity Balance
Ductile Iron spun Pipes with Socket & Spigot ends suitable for rubber gasket push on jointing as per IS: 8329:2000 (with latest amendments) with ISI Certification Mark with Internal Cement Mortar Lining and external Zinc & Bituminous coating.							
1.	DN 150 Class K-9	2740.0 mtrs	NIL	1331.0 mtrs (242pcsX5.5mts)	1331.0 mtrs (242pcsX5.5mts)	NIL	1409.0 mtrs

Remarks: All accepted items are stamped thus-



1. Certified that the items as detailed above have been inspected and accepted. The accepted items may be dispatched to the consignee. The Inspection Document Nos. Ref. No. IB00423240502020/1 Dated: 20.09.2023 are enclosed.
2. Any Dispute/discrepancies/claims may be brought to the notice of the undersigned within 30 days from the date of issue of this report.

AUTHORISED SIGNATORY
(Jitender Singh - 1677)



Cc.

1. Executive Engineer, Project Division kallappana, Vellayamkudy P.O. PIN 685515, Kerala Water Authority
2. M/s. Kurian Prasad Erumbay(H), Kunnackal (PO), Muvattupuzha, 682316
3. M/s Tata Metaliks Limited, Vill. Mahespur, P.O. Samraipur, Kharagpur, Dist. West Midnapore, West Bengal
4. CIPET-Kochi.

केन्द्रीय पेट्रोसायन अभियांत्रिकी एवं
प्रौद्योगिकी संस्थान (सिपेट)

(पूर्व में केन्द्रीय प्लास्टिक इंजीनियरिंग एवं तकनीकी संस्थान)

मुख्यालय, पीडीआई सेल

सायन एवं पेट्रो सायन विभाग,

सायन एवं उर्वरक मंत्रालय, भारत सरकार,

टीवीके औद्योगिक इस्टेट, गुन्दी, चेन्नई - 600 032

दूरभाष : 044-29813708 (Direct) / 044-22254780 (Extn-502)

ई-मेल : pdiho@cipet.gov.in



CENTRAL INSTITUTE OF PETROCHEMICALS
ENGINEERING & TECHNOLOGY (CIPET)

(Formerly Central Institute of Plastics Engineering & Technology)

Head Office, PDI Cell

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E-mail : pdiho@cipet.gov.in

CIPET / QF / 7742

WO Centre: CIPET-Kochi.

Camp at: Tata Metals Limited, Kharagpur.

Name of the Inspecting Official: Jitender Singh

Code No. : 1677

INSPECTION DOCUMENT

Dated: - 20.09.2023

Inspection Document No.: IB00423240502020/1

Issued to: M/s. Tata Metals Limited, vill: Mahespur, P.O. Sarvaipur, Paschim Medinipur, and Kharagpur 721301

Manufacturer / Supplier Inspection Call Letter No. & Date: TML/CIPET/PDI/2023-24/181, Dated: 11.09.2023

Inspection Document as per IS: 8329: 2000 with latest amendments

PART A: PARTICULARS OF STORES

- a) Description of the items : Ductile Iron Pipes (Socket & Spigot ends with supply of rubber gasket push on jointing)
- b) Grade/Variety/Type/Size/Class etc.: DN 150 mm, Class K-8
- c) Declared Value, if any : Nil
- d) Quantity : 1331.0 mtrs (242 pcsX5.5mtrs)
- e) Any Other Information : Batch No. J10, J11

PART - B: SUPPLEMENTARY INFORMATIONS

Reference to sampling procedure: IS 11605: 1986 (Random Sampling Method)

PART - C: RESULTS OF WITNESSED TESTS & REVIEW OF DOCUMENTS

Sl. No.	Clause No.	Tests Witnessed	Unit	Specified Requirements	Observed Results
1	13	DIMENSIONS			
		Length	mm		
1.1	13.1 & 15.5	Effective length (L) (Socket Ended Pipe)		mm	
		Minimum/Maximum	mm	5400 / 5600	5493 / 5518
1.2	13.3 & 15.4 Table 2	Min. Wall Thickness (e)	mm	4.7	5.3
1.3	15.1.1 Table 7	External Diameter (DE)			
		Minimum/ Maximum	mm	167.1/ 171.0	168.2/170.4
1.4	15.1.3	Ovality	%	With In Limit on DE	Confirmed
	Table 8 & 15.3.2	Tolerance on Ovality	mm	1.0	N/A
1.5	15.6	Deviation from Straight Line(maximum)	mm	≤ 1.25 X L	Confirmed
1.6	16.2	External Protection			
	Annex. C 2.2	Bituminous Coating-Minimum	µm	50	94
1.7	16.2 & Annex. C-2.3	Bituminous Coating shall be smooth & tenacious and hard enough not to flow when exposed to a temp of 85°C but not so brittle at temp of 0°C as to chip off when scribed with a pen knife.			Satisfactory
	16.3	Internal Linings			
1.8	Table 15 & 5-5	Cement Mortar Lining (Min.)	mm	1.5	2.8
	B-5	Chamfer Length of CML (Max.)	mm	50	< 50
	Table 16 & B-7	Minimum Bore of CML	mm	137	Passed through 137 mm Go Gauge
2	10	Mechanical Tests			
2.1	10.1.1	Minimum Tensile Strength	MPa	420	445
2.2	10.1.1	Minimum Elongation at Break	%	10	15.31
2.3	10.2	Brinell Hardness Test	HB	230(Max.)	158

Review of Documents (if any)

Sl. No.	Clause No./QAP Sl. No.	Test Parameters / Documents	Certificate / Reports No. & Date	Certificate / Report Issued by.	Review / Remarks
1.	11.1	Hydrostatic pressure, 5.0 MPa for 10 seconds	Hydrostatic Testing Log Sheet & works test report of M/s Tata Metals Ltd, Kharagpur.		Reviewed
2.	16.2	Zinc mass deposition	Mass of Zinc Coating Report of M/s Tata Metals Ltd, Kharagpur.		Reviewed
3.	8	Rubber Sealing Ring	Test Report No issued by Rubber sealing ring manufacturer; 1. Test Report: HCPL/TML/147 Dt: 09.09.2023 by M/S HOLDWELL, Ltd, Raipur 2. Test Report: NER/1 DIP/883 & 884 Dt: 15.09.2023 by M/s National Engineering Industries Limited, Kolkata 3. Test Report: APPL/TML/481 & 481A Dt: 09.09.2023 by M/s Andhra Polymers Pvt. Ltd, Hyderabad.		Reviewed

PART - D: REMARKS

- This inspection document shall not be reproduced except in full without the written approval of the PDI Cell at CIPET Head Office, Chennai.
- These witness results relate exclusively to the work ordered or the object (s) or the lot inspected.
- Lab. Environmental Condition during the witness of tests: Temp. (°C): 25 ± 2.
- Calibration status of equipment's / Instruments are verified.

AUTHORISED SIGNATORY
(Jitender Singh - 1677)





TATA METALIKS LIMITED
(DI Pipes Division)
INSPECTION OFFER MEMO

Date: 19.09.2023

Inspection agency : M/s. CIPET & KWA Official.
Client : The Executive Engineer
Kerala Water Authority
Office of the Executive Engineer, Project Division, Kattappana, Vellayamkudy, P.O-685515
Buyer : M/s. KURIAN PRASAD
Erumbayil house, Kunniackal P.O, Valakom, Muvattupuzha, Ernakulam
Kerala, 682316
PO No. : NIL, Dtd. 15/07/2023

Inspection Call Ltr. Ref. No. : TML/CIPET/PDI/2023-24/161, Date > 11.08.2023

Place of Inspection : Tata Metaliks Limited (DI Pipes Division), Kharagpur, West Bengal, India
: DI Pipe - ISI Marked Centrifugally cast (spun) Ductile iron pressure pipes with Socket & Spigot ends, suitable for push-on joints (Rubber Gasket as per IS 5382), internally Cement Mortar lined and externally Zinc & Black Bituminous coated in standard lengths as per IS 8329:2000. (Latest Amendments.)

Materials

S.O.No.	Size, (mm)	Class	Order Qty. (mtrs)	Qty. Offered, (mtrs)	Quantity Previously passed (Mtrs.)	Qty. in pcs. X Std. Length.	Batch No With Qty. (Nos)	Quantity Balance. (Mtrs.)
15002606	DN 150	K 9	2740.0	1331.0	0.0	242 Pcs X 5.5 Mtrs	J10=106, J11=136	1409.0

Rubber GasketsEPDM
(Tyton Joint)

Size	Batch No	Qty.(Nos)	Mode of Packing	Make
DN 150	06 '1' 23 TO 12 '1' 23	242	HDPE Bags	NER
	21E23 TO 06I23			APPL
	06/2023, 07/2023, 08/2023 & 09/2023			I-OLDWELL

Rubber gaskets as per IS 5382 : 2018 / BS-EN-681-1 / ISO-4633

Authorized Signatory
For Tata Metaliks Limited (DI Pipes Division)
Quality Assurance Dept.



Tata Metaliks Limited
VIII Mahespur PO Samraipur PS Kharagpur Local Paschim Midnapore 721 301 WB India
Tel 91 3222 233290 234424 Fax 91 3222 233316 e-mail tmikgp@tatametaliks.co.in
Regd Office Tata Centre 43 Jawaharlal Nehru Road Kolkata 700 071
CIN L27310WB1990PLC059000



TATA METALIKS LIMITED
(DI Pipes Division)
WORKS TEST CERTIFICATE

CERTIFICATE NO
Buyer

TML -D WTC 2821/23
: M/s. KURIAN PRASAD
: Erumbayil house, Kunthackal P.O, Valakom, Marathupuzha, Ernakulam
: Kerala, 682315
: **NIL, Dtd. 15/07/2023**

Date: 18.05.2023

PO No.

MATERIALS

: DI Pipe - ISI Marked Centrifugally cast (spun) Ductile iron pressure pipes with Socket & Spigot ends, suitable for push-on joints (Rubber Gasket as per IS 5382), internally Cement Mortar lined and externally Zinc & Black Bituminous coated in standard lengths as per IS 8329:2000. (Latest Amendments.)

Size(mm)	Class	Batch No With Qty. (Nos)
DN 150	K 9	J10=108, J11=138

Visual appearance

: All Pipes were visually checked & found satisfactory. (Annexure - 3)

Dimensions

: All the dimensions (Length, Wall Thickness, DE, Straightness & Ovality) were checked & found satisfactory as per specification IS 8329:2000

Internal Cement Lining Thickness

: Internal lining was done with Portland Slag Cement /Ordinary Portland Cement mortar as per IS 8329:2000 Thickness was checked and found within Limit.

Hydrostatic test

: 100% pipes have been hydrostatically tested as per IS 8329:2000 for 10 Seconds and found satisfactory. No leakage or sweating were observed. (Annexure - 1)

Mechanical test

: UTS, % Elongation and BHN were checked & found to comply with the specification. Extract from record is given below:

Size (mm ø)	Class	Batch No.	Tensile Strength (Min.: 420MPa)	Elongation (Min.: 10%)	BHN (Max:230 HBW)
150	K 9	J10	440	15.26	152
150	K 9	J11	447	14.57	154

Primary Coating

: The outer diameter of the pipe surface is coated with Metallic zinc and mass of zinc coating was checked on sample pipes. The result conform as per the specification IS 8329:2000 (Annexure - 2)

Secondary Coating

: The secondary layer of outside surface of pipes and socket inside are coated with Bituminous paint. Thickness was found to be more than the specified limit and meets the requirements of IS 8329:2000.


Markings

: **Body:** TATA DUCTURA, IS 8329, ISI Logo, CML NO.5508258, Class,
Spigot: Insertion Mark, Length, Size
Socket: Size, Class, Length, Batch No., Dt. Yr. of Mfg., I (For India) and Mfg's Logo,
EPDM Rubber gaskets as per IS 5382

Rubber Gasket

Dimensional check
Visual inspection of workmanship and finish
Shore hardness
Markings
Declaration

: Samples checked and found satisfactory.
: All the gaskets were checked visually and found satisfactory.
: Shore hardness was found within specification as per IS 5382
: IS 5382, Ty. 2/5, ISI Logo, WRAS No./WATER, CML No., BS EN 661-1, ISO 4533, 50490, Mfg. Name, TDXP, Size, T, EPDM.
: TML's Ductile Iron Pipes & the Gaskets do not have any detrimental effects on the properties of water which it is transporting during normal operation. Pipes and Gaskets do not have any detrimental effect on environment during its use and storage.


Authorized Signatory
For Tata Metaliks Limited (DI Pipes Division)
Quality Assurance Dept.



Tata Metaliks Limited
VIII Mahespur PO Samraipur PS Kharagpur Local Paschim Midnapore 721 301 WB India
Tel 91 3222 233290 234424 Fax 91 3222 233316 e-mail tmikgp@tatametaliks.co.in
Regd Office Tata Centre 43 Jawaharlal Nehru Road Kolkata 700 071
CIN L27310WB1990PLC090000

TATA METALIKS LIMITED
(DI Pipes Division)
OBSERVATION REPORT

Date: 19.09.2023

Client : The Executive Engineer
Kerala Water Authority
Office of the Executive Engineer, Project Division, Kattappana, Vallayamkudy, P.O-686615

Buyer : M/s. KURIAN PRASAD
Erumbayil house, Kunnackal P.O, Vallokom, Minvatupurha, Ernakulam
Kerala, 682316

Contractor : M/s. KURIAN PRASAD

PO No. : NIL, Dtd. 15/07/2023

KWA Letter ref. No : 539/DB1/2023/Pr.D-KTPA-MTPZA, Dated: 07.09.2023

Name of the Project : JJM -WSS-to Santharpara, Rajakumary and Sersapathy Panchayaths in Idukki district Package-II clear water pumping main, Sump cum pump house, GSUR in Sersapathy GP pipeline.

Inspection Authority : M/s. CIPET & KWA Official.

Date of Inspection : 19.09.2023

Place of Inspection : Tata Metaliks Limited (DI Pipes Division), Kharagpur, West Bengal, India

MATERIALS : DI Pipe - ISI Marked Centrifugally cast (spun) Ductile iron pressure pipes with Socket & Spigot ends, suitable for push-on joints (Rubber Gasket as per IS 5382), internally Cement Mortar lined and externally Zinc & Black Bituminous coated in standard lengths as per IS 8329:2000. (Latest Amendments.)

Size, (mm)	Class	Batch No With Qty. (Nos)	Order Qty. (mtrs)	Qty. Offered, (Mtrs)	No of Pipes X Std. Length.
DN 150	K 9	J10-106, J11-138	2740.0	1331.0	242 Pcs X 5.5 Mtrs

Visual appearance : Sample Pipes were visually checked & found satisfactory and Manufacturer certificate for surface quality was reviewed.(Annexure - 3)

Dimensions : Length, Wall Thickness, DE, Straightness & Ovality were checked & found satisfactory as per specification IS 8329:2000

Mechanical Test : Mechanical test was Witnessed as per specification IS 8329:2000 and found satisfactory (Report attached).

Cement Mortar Lining : Internal lining was done with Cement mortar as per IS 8329:2000. Thickness, Appearance & Bond clearance were checked as per IS 8329:2000 and found satisfactory ,

Secondary Coating : Bituminous coating thickness was checked and found satisfactory as per IS 8329:2000. (Annexure).

Primary Coating : Manufacture's test report was reviewed & found satisfactory.(Annexure - 2)

Hydrostatic Test : Manufacture's test declaration was reviewed & found satisfactory (Annexure - 1)


Markings : **Body:** TATA DUCTURA, IS 8329, ISI Logo, CML NO.5506259, Class,
Spigot : Insertion Mark, Length, Size
Socket: Size, Class, Length, Batch No., DI, Yr. of Mfg., I (For India), and Mfg's Logo.

Rubber gaskets - : Rubber gaskets as per IS 5382 Manufacturer internal Test Certificates reviewed.
The Rubber Gaskets are to be supplied by M/s Tata Metaliks Ltd. with the offered pipes as per terms & conditions of the purchase Order. (Declaration of M/s Tata Metaliks Ltd. is enclosed as annexure - 4)

Packing : DI Pipes were in loose condition.

CONCLUSION : DI pipes and gaskets were accepted.

Stamping : 1677/12M was single rubber stamped on all pipes


Authorized Signatory
For Tata Metaliks Limited(DI Pipes
Quality Assurance Dept.



Sudheer M
Executive Engineer
KWA Project Division, Kattappana



CIPET




TATA METALIKS LIMITED
(DI Pipes Division)

MASS OF ZINC / Zn-Al COATING REPORT


(Annexure - 2)

Buyer M/s. KURIAN PRASAD Date: 19.09.2023
Erumbayil house, Kunnackal P.O, Valakom, Muvattupuzha, Ernakulam
Kerala, 682316
PO No. NIL, Dtd. 15/07/2023

Coupon Material : Plastic Token
Coupon Size : 500 X 50mm
Area (A) : 0.025m²
Correction factor (C) : 1.2

Zinc Requirement: Average Deposit - 130 g/m²

S.No	Size	Class	Batch No.	Mass of Zinc / Zn-Al Deposited on pipe(M)		Remarks
				=C(M2-M1) g/m ²		
				A		
Min.	Max.					
1	DN 150	K 9	J10	137.76	143.04	Satisfactory
2	DN 150	K 9	J11	138.24	143.52	



Authorized Signatory
For Tata Metaliks Limited (DI Pipes Division)
Quality Assurance Dept.



Declaration

It is declare that the ISI Marked Rubber Gasket confirming to IS 5382' Push -on Joint is being supplied along with the pipes based on the terms & conditions of the Purchase order & as per the details mentioned below.

Sl No.	P.O. No.	Name of The Indenter / Consignee	Name of the Supplier of Gasket	Description of the Material / Size	Qty. of Rubber Gasket (in nos.)
1	NIL, Dtd. 15/07/2023	The Executive Engineer Office of the Executive Engineer, Project Division, Kattappana, Vellayankudy, P.O- 685515	NER	150 mm	242
			APPL		
			HOLDWELL		


 Authorized Signatory
 For Tata Metals Limited (DI Pipes Division)
 Quality Assurance Dept.





Internal Inspection Certificate for Surface Quality

(Annexure - 3)

Date: 19.09.2023

This is to certify that centrifugally cast (spun) Tyton joint Ductile iron pressure Pipe, as per IS 8329:2000 detailed below have been manufactured by Tata Metaliks Limited (DI Pipes Division), at Kharagpur works. 100% pipes have been checked for surface quality of external, internal appearance and no harmful defects were observed.

Buyer : M/s. KURIAN PRASAD
Erumbayil house, Kunnackal P.O, Valakom, Muvatupuzha, Ernakulam
Kerala, 682316

PO No. : NIL, Dtd. 15/07/2023

Test Results

Size (mm)	Class	Batch No With Qty (Nos)	Qty. (Nos.)	Remarks
DN 150	K 9	J10=106, J11=136	242	Satisfactory


Authorized Signatory

For Tata Metaliks Limited(DI Pipes Division)
Quality Assurance Dept.



TATA METALIKS LIMITED

VIII Mahespur PO Samraipur PS Kharagpur Local Paschim Medinipur 751 305 WB India
Tel: 91 3222 233290 234424 Fax: 91 3222 233316 e-mail: tmkqp@tatametaliiks.com
Registered Office: Tata Centre 43 J I, Nehru Road, Kolkata 700 071
CIN: L27310WB1990PLC050000



Hydrostatic Test Declaration

(Annexure - 1)

Date: 19.09.2023

This is to certify that centrifugally cast (spun) Tyton joint Ductile iron pipe as per IS 8329:2000 detailed below have been manufactured by Tata Metaliks Limited (DI Pipes Division), at our Kharagpur works and 100% pipes have been hydrostatically tested and no leakage or sweating were observed.

Buyer : M/s. KURIAN PRASAD
Erumbayil house, Kunnackal P.O, Valakom, Muvatupuzha, Ernakulam
Kerala, 682316

P.O. No. : NIL, Dtd. 15/07/2023

Test Results

Size (mm)	Class	Batch No With Qty. (Nos)	Qty. (Nos.)	Hydrostatic Test Pressure (MPa)		Test Duration (Seconds)	Remarks
				Required	Observed		
DN 150	K 9	J10=108, J11=136	242	5.0	5.0	10	Satisfactory


Authorized Signatory
For Tata Metaliks Limited(DI Pipes Division)
Quality Assurance Dept.



TATA METALIKS LIMITED

Vill Mahespur PO Samraipur PS Kharagpur Local Paschim Medinipur 721 301 WB India
Tel: 91 3222 233290 234424 Fax: 91 3222 233316 e-mail: tmlkpp@pratametaliiks.com
Registered Office: Tata Centre 43 J L Nehru Road, Kolkata 700 071
CIN: L27310WB1990PLC050000



Doc. No. : TML/MS/INDGAF&CD-1121
Rev No.: 01 Rev. Date : 04.07.2022

WARRANTY CERTIFICATE

CERTIFICATE NO : TML -D 2821/23 **Date:** 19.09.2023

Buyer : M/s. KURIAN PRASAD
Erumbayil house, Kunnackal P.O, Valakom, Muvatupuzha, Ernakulam
Kerala, 682318

PO No. : NIL, Dtd. 15/07/2023


Materials : DI Pipe - ISI Marked Centrifugally cast (spun) Ductile iron pressure pipes with Socket & Spigot ends, suitable for push-on joints (Rubber Gasket as per IS 5382), internally Cement Mortar lined and externally Zinc & Black Bituminous coated in standard lengths as per IS 8329:2000. (Latest Amendments.)

S.O. No.	Size (mm)	Class	Batch No With Qty. (Nos)	Total Nos.	Total Qty., mtrs.
16002606	DN 150	K 9	J10=106, J11=136	242	1331.0

We hereby warranty that all the materials as detailed above conforms to specification and purchase order condition and warranted for a period of 12 months from the date of commissioning or 18 months from the date of dispatch whichever is earlier against any manufacturing defects.

This Warranty is not valid for handling damages during unloading at site, transportation at site, stacking at site and laying in trenches; damages if pipes are subjected to faulty system or network design and laid without proper anchoring in trenches which are not made as per standard. The warranty will not be valid for failure / system leakages if pipes are laid without proper gaskets.

This Warranty will also not be valid if good engineering practices and proper tools, tackles and equipment are not used for laying and jointing of the pipes.


Authorized Signatory
For Tata Metaliks Limited (DI Pipes Division)
Quality Assurance Dept.



TATA METALIKS LIMITED

Vill Mahespur PO Samraipur PS Kharagpur Local Paschim Medinipur 721 301 WB India
Tel: 91 3222 233290 234424 Fax: 91 3222 233316 e-mail: tmlkpp@tatametaliiks.co.in
Registered Office Tata Centre 43 J L Nehru Road Kolkata 700 071
CIN L27310WB1990PLC050000



ANDHRA POLYMERS PRIVATE LIMITED

Date : 09.09.2023


GUARANTEE CERTIFICATE

This is to certify that the inspection of under mentioned materials was duly made as in accordance with the specification stated below and the results were found satisfactory

Materials manufactured and supplied by us are guaranteed for Two (2) Years from the date of dispatch against manufacturing defects in material and workmanship which develop in the service for which they are designed. We shall repair or replace defective material, free of charge, provided that, after inspection the material is found to be defective.

Our liability is limited to the replacement of materials only in no event we shall be liable for normal wear and tear nor for any incidental or consequential damages due to Non -function of the materials.

- | | | |
|-------------------------------|---|--|
| 1. Purchase order, No. & Date | : | 4200016805/Date:09.08.2023
4200017320/Date:08.05.2023
4200018885 /Date:14.08.2023, |
| 2. Consignee Name & Address | : | TATA METALIKS DI PIPES LTD
P.O SAMRAIPUR , KHARAGPUR
PASCCHIM MIDNAPUR-721301 |
| 3. Description of Material | : | Tyton Rubber Gasket |
| 5. Invoice No & Date | : | R- 216/ Date: 09.09.2023 |
| 6. Specification | : | Dimensions as per TMKPL SPEC. D-S6144
TMKPL- QA-ACSR-2317 Rev-0,APPL DV-01&03 |

For Andhra Polymers Pvt. Ltd.

S Santhosh
(QUALITY INCHARGE)



Regd. Office :
Span Solitaire,
6-3-1090/B/5
Raj Bhavan Road,
Hyderabad - 500 082, INDIA.
E-mail : marketing@andhrapolymers.com
☎ 23442280, Fax : 040-23402095



CIN No. : U24134TG1982PTC003538

Factory :
Plot No.2, Phase - V,
IDA Jeedimetla,
Hyderabad - 500 055, INDIA.
E-mail : technical@applind.com
☎ : 040-23449241, 23449242,
Fax : +91-40-23194095



ANDHRA POLYMERS

PRIVATE LIMITED

DIMENSIONAL TEST REPORT OF TYTON RUBBER GASKET							F/QC/06 -00			
							Date : 09.09.2023			
Specification	: Spec D-S5144 Rev.0									
Size	: DN - 150 MM									
Customer	: TATA METALIKS LIMITED (DI PIPES DIV)									
Date of inspection	: 08.09.2023									
Order no & date	: 4200018805 DT : 09.08.2023									
Invoice no & date	: R-216 DT : 09.09.2023									
Lot of	: 1100 Nos									
Sample Size : 05 Nos. as per ISO 2859-1										
	B	D2	A	I	D1	E	Hardness		Remark	
	16.0	196.5	9.70	4.70	198.5	25.2	Bulb	Heel		
Specification	16.5	199.5	10.30	5.30	201.5	26.8	45 -55	75 -85		
min	16.13	197.0	9.83	4.84	199.0	25.53	49	79	ok	
max	16.40	199.0	10.24	5.12	201.0	26.31	51	82	ok	
Stretch Test - ok										
Checked by										



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 Span Solitaire,
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 Hyderabad - 500 082, INDIA.
 E-mail : marketing@andhrapolymers.com
 © 23442260, Fax : 040-23402095



CIN No. : U24134TG1982PTC003538

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 IDA Jeedimetla,
 Hyderabad - 500 055, INDIA.
 E-mail : technical@applind.com
 © : 040-23449241, 23449242,
 Fax : +91-40-23194095



ANDHRA POLYMERS

PRIVATE LIMITED

PHYSICAL TEST REPORT OF TYTON RUBBER GASKET (HEEL)		F/QC/06 -00
T.C. NO.	: APPL/TML/481A	Date: 09.09.2023
Material	: EPDM (EW80) PUSH- ON GASKET	
Size	: DN- 100,150,200,250,300,350,400,450,500,600,700,750,800,900,1000,1200 mm	
Quantity	: 880,1100,1050,1020,714,930,1000,1007,1408,300,215,136,203,450,580,64 Nos	
Customer	: TATA METALIKS LIMITED (DI PIPES DIV)	
Order no & Date	: 4200018805 /Dt: 09.08.2023,4200017320/Dt:08.05.2023,4200018885/Dt:14.08.2023	
Invoice no. & Date	: R-215 / Dt:09.09.2023	
Batch No	: 21E23 TO 08I23	
Mfg. Month / year	: MAY TO SEP - 23	

Sl. No	Descriptions	Specification	Observed value		Sample Size as per ISO Level 2859-1 Special Inspection S-2
			Min	Max	
1	Hardness IRHD/Shore A	75 - 85	78	83	8
2	Tensile strength Mpa	9 min	8.56	10.35	8
3	Elongation @ Break%	125 min	350	370	8
4	Compression Test				
a	at 70°C for 24 hrs	20%max	9.23	10.54	8
b	at 23°C for 72 hrs	15%max	8.98	9.88	8
c	at -10°C for 72 hrs	60%max	40.50	42.50	8
5	Ageing at 70°C for 7 days				
a	Change in hardness	-5 to +8	+2	+3	8
b	Change in Tensile strength	-20%	-3.35	-2.62	8
c	Change in EB%	-40 to +10%	-5.46	-4.81	8
6	Volume change in water at 70°C for 7 days	-0 to +8%	2.53	2.65	8
7	Splice Condition Test	No visible alternation in the splice area	OK		8
8	Ozone resistance	No crack when viewed without magnification	OK		1
9	Stress Relaxation for 7 days at 23°C	17% max	13.20		1

Remark: The above results are conforming to ISO 4633, BS- EN 581 - 1: 1996 IS 5382:2016 Hardness class 80, WA & TD/PL Spec D-SB144 Rev 0



Tested by

[Signature]

Approved by

[Signature]



CIN No. : U24134TG1982PTC003538

Regd. Office :
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6-3-1090/B/5
Raj Bhavan Road,
Hyderabad - 500 052, INDIA.
E-mail : marketing@andrapolymers.com
© 23442260, Fax : 040-23402095

Factory :
Plot No.2, Phase - V,
IDA Jeedimetta,
Hyderabad - 500 055, INDIA.
E-mail : technical@applind.com
☎ : 040-23448241, 23448242,
Fax : +91-40-23194095




ANDHRA POLYMERS

PRIVATE LIMITED

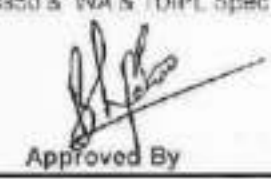
PHYSICAL TEST REPORT OF TYTON RUBBER GASKET (BULB)		F/QC/06 -00
T.C. NO.	: APPL/TML/481	Date : 09.09.2023
Material	: EPDM (EW48)PUSH- ON GASKET	
Size	: DN- 100,150,200,250,300,350,400,450,500,600,700,750,800,900,1000,1200 mm	
Quantity	: 990,1100,1050,1020,714,930,1000,1007,1408,300,216,136,203,450,580,64 Nos.	
Customer	: TATA METALIKS LIMITED (DI PIPES DIV)	
Order no & Date	: 4200018805 /Dt: 09.08.2023,4200017320/Dt:08.05.2023,4200018885/Dt:14.08.2023	
Invoice no. & Date	: R -216 / Dt 09.09.2023	
Batch No	: 21E23 TO 08I23	
Mfg. Month / year	: MAY TO SEP - 23	

Sl. No	Descriptions	Specification	Observed value		Sample Size as per ISO Level 2859-1 Special Inspection S-2
			Min	Max	
1	Hardness IRHD/Shore A	45 - 55	49	53	8
2	Tensile strength Mpa	9 min	10.23	10.98	8
3	Elongation @ Break%	375 min	600	630	8
4	Compression Test				
a	at 70°C for 24 hrs	20%max	10.98	11.55	8
b	at 23°C for 72 hrs	12%max	8.56	9.97	8
c	at -10°C for 72hrs	40%max	32.70	34.12	8
5	Ageing at 70°C for 7 days				
a	Change in hardness	-5 to +8	+2	+3	8
b	Change in Tensile strength	-20%	-3.12	-3.32	8
c	Change in EB%	-30 to +10%	-4.35	-3.72	8
6	Volume change in water at 70°C for 7 days	-1 to +8%	2.28	3.13	8
7	Splice Strength	No visible alteration in the splice area	OK		8
8	Ozone resistance	No crack when viewed without magnification	OK		1
9	Stress Relaxation for 7 days at 23°C	14% max.	10.90		1

Remark: The above results are conforming to ISO 4633, BS- EN 681 - 1: 1996, IS 5382 2018, EN 10753 class50 & WA & TD/PL Spec D 56144 Rev 0

Tested By 



Approved By 

Regd. Office :
Span Solitaire,
6-3-1090/B/5
Raj Bhavan Road,
Hyderabad - 500 082, INDIA.
E-mail : marketing@andhrapolymers.com
☎ 23442260, Fax : 040-23402095



SRN No. : U24134TG1982PTC003538

Factory :
Plot No.2, Phase - V,
IDA, Jeedimella,
Hyderabad - 500 055, INDIA.
E-mail : technical@applind.com
☎ : 040-23449241, 23449242,
Fax : +91-40-23194005



DIMENSION CHART OF TYTON RUBBER GASKET (EPDM)

1) Specification	D - S 6144
2) Size	DN - 150 mm
3) Party	Tata Metaliks Ltd.
4) Date of inspection	15.08.23
5) Order no.	4200017421 dated 18.05.2023
6) Lot size (pcs.)	440 Pcs

Sl. No.	D1	D2	A	B	E	I	Hardness (IRHD)		Remarks
							Blub	Heel	
REQUD.	200 ± 1.5	198 ± 1.5	10 ± 0.3	16.2+0.3/-0.2	26 ± 0.8	5 ± 0.3	46 - 55	76 - 84	
1	201.20	198.20	10.20	16.20	26.30	5.10	48	78	accepted
2	200.30	199.30	10.00	16.40	25.80	4.90	50	77	✓
3	201.10	197.80	9.90	16.30	26.40	5.00	52	79	✓
4	200.50	198.30	10.10	16.10	26.90	5.10	49	82	✓
5	201.30	197.90	10.20	16.20	25.80	4.90	50	80	✓
OBSERVED									

STRECH TEST :- Strech test done on -3 nos. Gasket from lot and found ok.

PHYSICAL DEFECTS:- (VISUAL)

No visual defects observed.

DOC.No. NEM/INSG/F0905

For N.E.I. (R) Ltd. Insp.

REV.No.: 00



NATIONAL ENGINEERING INDUSTRIES LTD.

(Rubber Division)

3, BEERPARA LANE, DUM DUM, KOLKATA - 700 030



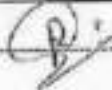
PHONE: 2556 8516/17/18, FAX: 033 2556 8519, E-mail: ner@net2.vsnl.net.in

PHYSICAL TEST REPORT FOR TYTON RUBBER GASKET (BULB)

LAB. T.C. NO.	NER/DIP/885	Date: 15.09.23			
Material	EPDM PUSH - ON GASKET				
CUSTOMER	Tata Metaliks Ltd.				
Size	100,150,200,250,350,400,500,600 mm				
Quantity	495,440,750,480,480,360,339,91 pcs				
Order no & date	4200017421 dated 16.05.2023				
Invoice no & date	7897 DATED 15.09.2023				
Batch No.	05" "23 TO 12" " 23				
Mfg Month / year	SEP '23				
WRAS NO.	1310525, & 1104512				
Sl. No.	Test	Specification	Observed		Sample size
			Min	Max	
1	Hardness (IRHD /Shore A)	46-55	48	52	5
2	Tensile Strength (MPa) minimum	11	11.5	11.9	5
3	Elongation (%) min.	400	490	520	5
4	Compression Set at 23 °c - 72 Hrs. (max).	12	9.7	10.8	5
		25	13.2	15.6	5
5	Compression Set at 70 °c - 24 Hrs. (max) Change after accelerated ageing 168 hrs.				
6	at 70°c				
7	1) Tensile strength, % change of original (max)	-20	-15.2	-13.6	5
	2) Elongation at Break (%) change of original (max/min)	+10 / -30	-54.6	-10.5	5
	3) Hardness change (IRHD/Shore A) (max / min)	+8 / -5	3	4	5
7	Change in volume after immersion in distilled water for 7 days at 70 ° c max	+8 / -1	4.3	4.9	2
8	Change Hardness for 72 Hrs at 0 ° c	+5 / -0	4	5	2
9	Cold Resistance Hardness increase at 0 ° c - 72 Hrs. (max)	5	3	5	2
10	Ozone Resistance	No crack	No crack		2

Remark: The above results are conforming to ISO 4633, BS: EN 681 -1: & IS 5352:2016 Type 2
TDIP Spec D -SB144 Rev 9

Tested By: 
DCC.No. NEI/NSG/F0905

Approved By: 
(Rubber Division)

Regd. Office 9/1 B.N. MUSEUM ROAD KOLKATA 700001





PHONE: 2556 8516/17/18, FAX: 033 2556 8519, E-mail: ner@cat2.vsnl.net.in

PHYSICAL TEST REPORT FOR TYTON RUBBER GASKET (HEEL)

LAB. T.C.NO.	NER/TDIP/684	Date: 15.09.23			
Material	EPDM PUSH - ON GASKET				
CUSTOMER	Tata Metaliks Ltd.				
Size	100,150,200,250,350,400,500,800 mm				
Quantity	495,440,750,480,480,350,336,91 pcs				
Order no & date	4200017421 dated 18.05.2023				
Invoice no. & date	7957 DATED 15.09.2023				
Batch No.	06 " 1" 23 TO 12 " 1" 23				
Mfg Month / year	SEP '23				
WRAS NO.	1310525, & 1104512				
Sl.No.	Test	Specification	Observed		Sample size
			Min	Max	
1	Hardness (IRHD /Shore A)	76-84	79	82	5
2	Tensile Strength (MPA) minimum	9	9.6	9.8	5
3	Elongation (%) min.	125	170	210	5
4	Compression Set at 27 ° c - 72 Hrs.(max).	15	11.1	12.8	5
5	Compression Set at 70 ° c - 24 Hrs.(max)	25	12.5	14.9	5
6	Change after accelerated ageing 168 hrs. at 70°C				
	1) Tensile strength, % change of original (max)	-20	-15.1	-12.8	5
	2) Elongation at Break (%) change of original (max/min)	+10 / -30	-14.8	-11.6	5
	3) Hardness change (IRHD/Shore A (max / min)	+8 / -5	4	5	5
7	Change in volume after immersion in distilled water for 7 days at 70 ° c max	+8 / -0	3.9	4.2	2
8	Change Hardness for 72 Hrs at 0 ° c	+5 / -0	3	4	2
9	Cold Resistance Hardness increase at 0 ° c - 72 Hrs.(max)	5	2	5	2
10	Stress relaxation in compression after 7 days at 23° c max %	17	11.2	14.6	2
11	Ozone Resistance	No crack	No crack		2
Remark: The above results are conforming to ISO :4833 . BS: EN 681 -1: & IS 5362:2018 Type 5 TDIP Spec D -56144 Rev 0					
Tested By: _____	Approved By: _____				
DOC.No. NEI/NSG/P0905	For National Engineering Industries Ltd. (Rubber Division)				
Head Office 9/1 B.N. MUKHERJEE ROAD KOLKATA 700001					



NATIONAL ENGINEERING INDUSTRIES LTD.

(Rubber Division)

2, SEERPARA LANE, DUM DUM, KOLKATA - 700 030



PHONE : 2556 8516/17/18, FAX : 033 2556 8519, E-mail : ner@cal2.vsnl.net.in

WARRANTY / GUARANTEE CERTIFICATE

This is to certify that the inspection of the undermentioned materials was duly made by us in accordance with the specification stated below and the results were found satisfactory.

Materials manufactured and supplied by us are guaranteed for Two (2) year from the date of despatch against manufacturing defects in material and workmanship which develop in service for which they are designed. we shall repair or replace, free of charge, provided that after inspections the material is found to be defective.

Our liability is limited to the replacement of materials only in no event we shall be liable for normal wear and tear nor for any incidental or consequential damages due to Non - function of the materials.

- a) Purchase Order no. & date 4200017421 DATED 18.05.23
- b) Consignee Name & address TATA METALIKS LIMITED
P.O. SHAMRAIPUR, PASCHIM MIDNAPUR 721301 (W.B)
- c) Description of Material Tyton Rubber Gaskets (EPDM)
- d) Invoice no. & date 7057 DATED 15.09.2023
- e) Batch No. 06 " i " 23 TO 12 " i " 23
- f) Dimension as per Kubota D-56144
& properties as per IS : 5382 - 2018

DOC.No. NEI/NSG/F0905

For National Engineering Industries Ltd.
(Rubber Division)

Regd. Office 9/1 R.N. MUKHERJEE ROAD KOLKATA 700001



DIMENSIONAL TEST REPORT OF TYTON RUBBER GASKET

ALL DIMENSIONAL ARE IN MM

Date :09-09-2023

Specification : Spec - D-S6144 Rev.D
 Order no & Date : 4200018774 Dtd.08.08.2023
 Size : DN - 150 MM
 Customer : TATA Metaliks Ltd
 Date of Inspection : 09-09-2023
 Invoice no. & date : HCPL/GSK/224 Dtd 09-09-2023
 Lot of : 1320 Nos

Sample Size : 08 Nos. as per IS 5382:2018

Specification	B	D2	A	I	D1	E	Hardness		Remark
							Bulb	Heel	
	16.0	196.5	9.7	4.7	198.5	25.2	45-55	75-85	
	16.5	199.5	10.3	5.3	201.5	26.8			
Min	16.00	197.1	9.94	4.84	199.2	25.38	49	79	OK
Max	16.42	198.8	10.24	5.18	200.7	26.54	52	82	OK

Doc No-HW/QAP/SR(TG)/001 Rev No-00 Dtd-15/01/18

[Signature]
 Approved by
 (QA & QC IN CHARGE)




 HOLDWELL COMPONENTS PVT LTD.
(AN ISO 9001:2015 COMPANY)

PHYSICAL TEST REPORT OF TYTON RUBBER GASKET (BULB)

Report No.	:HCPL/TML/147	Date	:09-09-2023
Material	:EPDM PUSH- ON GASKET		
Size	:DN-100,150,200,250,300,350,400,450,500,600,750,800,900,1000 & 1200 MM		
Quantity	:1980,1320,675,480,378,630,650,418,336,240,32,308,56,210 & 22 Nos.		
Customer	:TATA Metaliks Ltd		
Order no & Date	:4200018774 Dtd.08.08.2023 & 4200018886 Dtd.14-08-2023		
D.C. NO & Date:	:HCPL/224 & HCPL/225 Dtd 09-09-2023		
Invoice no. & Date	:HCPL/GSK/224 & HCPL/GSK/225 Dtd 09-09-2023		
Batch No.	:06/2023,07/2023,08/2023 & 09/2023		
WRAS No.	:2303508		
Mfg. Month/Year	:06/2023,07/2023,08/2023 & 09/2023		

Sl. No	Descriptions	Specification	Observed Value	
			Min	Max
1	Hardness IRHD	45 - 55	47.5	53.0
2	Tensile strength Mpa	9 min	12.8	13.4
3	Elongation at Break (% Min)	375 min	585	640
4	Compression Test (% Max)			
a	at 70°C for 72 hrs	20 % max	13.1	14.9
b	at 23°C for 72 hrs	12 % max	8.7	9.5
c	-10°C for 72 hrs	40 % max	21.1	26.4
5	Ageing at 70°C for 100 hrs			
a	Change in Hardness	-5 to +8	+2	+3
b	Change in Tensile strength % (Max)	-20%	-11.4	-8.8
c	Change in Elongation at break %	-30 to +10%	-13.8	-10.1
6	Water immersion change in volume at 70°C for 168 hrs	-1 to +8%	+2.78	+3.12
7	Stress Relaxation for 7 days at 23°C	14 % max	9.7	11.2
8	Stress Relaxation for 100 days at 23°C	20 % max	12.1	13.9
9	Ozone resistance 40 hrs/50 ppm ozone at 40°C.	No cracking when viewed without magnification	OK	

Remark: The above results are conforming to IS 5382:2018, BS EN 681-1, ISO 4633 Hardness Class-50 & TML Spec D-56144 Rev 0
Doc No-HW/QAP/SR(TG)/001 Rev No-00 Dtd-15/01/18

Bera
Approved by




 HOLDWELL COMPONENTS PVT LTD.
(AN ISO 9001: 2015 COMPANY)

PHYSICAL TEST REPORT OF TYTON RUBBER GASKET (HEEL)

Report No.	:HCPL/TAT/147	Date	:09-09-2023
Material	:EPDM P... DN GASKET		
Size	:DN-100,150,200,250,300,350,400,450,500,600,750,800,900,1000 & 1200 MM		
Quantity	:1980,1320,675,480,378,630,650,418,336,240,32,308,56,210 & 22 Nos.		
Customer	:TATA Metaliks Ltd		
Order no & Date	:4200018774 Dtd.08.08.2023 & 4200018886 Dtd.14-08-2023		
D.C. NO & Date	:HCPL/224 & HCPL/225 Dtd 09-09-2023		
Invoice no. & Date	:HCPL/GSK/224 & HCPL/GSK/225 Dtd 09-09-2023		
Batch No.	:06/2023,07/2023,08/2023 & 09/2023		
WRAS No.	:230350		
Mfg. Month/Year	:06/2023,07/2023,08/2023 & 09/2023		

Sl. No	Descriptions	Specification	Observed Value	
			Min	Max
1	Hardness IRHD	75 + 85	78.9	84.3
2	Tensile strength Mpa	9 min	9.9	10.7
3	Elongation at Break%	125 min	195	270
4	Compression Test (% Max)			
a	at 70°C for 24 hrs	20 % max	14.5	16.2
b	at 23°C for 72 hrs	15 % max	10.2	11.4
c	-10°C for 72 hrs	60 % max	24.1	28.7
5	Ageing at 70°C for 168 hrs			
a	Change in Hardness	-5 to +8	+2	+3
b	Change in Tensile strength (Max)	-20%	-12.8	-9.7
c	Change in Elongation at break %	-40 to +10%	-13.9	-10.2
6	Water immersion change in volume at 70°C for 168 hrs	-1 to +8%	+3.08	+3.71
7	Stress Relaxation for 7 days at 23°C	17 % max	12.1	13.8
8	Stress Relaxation for 100 days at 23°C	25 % max	11.8	13.5
9	Ozone resistance 48 hrs/100 phm ozone at 40°C.	No cracking when viewed without magnification	OK	

 Remark: The above result are conforming to IS 5382:2018, BS EN 681-1, ISO 4633 Hardness Class-80 & TMI Spec. D-S6144 Rev 0
Doc No-HW/QAP/SR(TG)/001 Rev 00 Dtd-15/01/18

Approved by


 B. R.N. Mukherjee Road,
Kolkata- 700001, West Bengal

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Raipur- 492003, Chhattisgarh

www.holdwellcomponents.com

+91 9103838863


 ISO 9001:2015
Cert. No. 2089217

Date : 09-09-2023

GUARANTEE CERTIFICATE

This is to certify that the inspection of under mention materials was duly made us in accordance with the specification stated below and results were found satisfactory.

Material manufactured and supplied by us are guaranteed for two (2) Years from the date of dispatch against manufacturing defects in material and workmanship which develop in the service for which they are designed. We shall repair or replace defective material, free of charge provided that, after inspection the material is found to be defective.

Our liability is limited to the replacement of materials only in no event we shall be liable for normal wear and tear or for any incidental or consequential damages due to non - function of the materials.

1 Purchase order No. & Date	:4200018774 Dtd.08.08.2023 & 4200018886 Dtd.14-08-2023
2 Consignee Name & Address	:TATA Metaliks Ltd (DI Pipes Division) P.O SAMRAIPUR, KHARAGPUR PASCCHIM MIDNAPUR-721301
3 Description of Material	:Tyton Rubber Gasket made of EPDM polymer DN-100,150,200,250,300,350,400,450,500,600,750,800,900,1000 & 1200 MM 1980,1320,675,480,378,630,650,418,336,240,32,308,56,210 & 22 Nos.
4 Batch No.	:06/2023,07/2023,08/2023 & 09/2023
5 Challan No	:HCPL/224 & HCPL/225 Dtd 09-09-2023
6 Invoice No. & Date	:HCPL/GSK/224 & HCPL/GSK/225 Dtd 09-09-2023
7 Specification	:Dimensions as per TML Spec, D-S6144 Rev-0

For Holdwell Components Pvt Ltd.



 Soumen Bera
 (QA & QC IN CHARGE)

Doc No-HW/QAP/SMP/001 Rev No-00 Dtd-15/01/18 ★

