

# INSPECTION REPORT

Inspection Report Number	210158-011019-01	Rev:	0	Date:	01/10/2019
Contract code	403351				

## I. General

Client:	<b>M/s SIDERIDRAULIC SYSTEM SPA</b>	Project:	<b>TERMIUM - H1660-Pesqueria (Mexico)</b>		
Supplier:	<b>M/s Paharpur, Europe SA</b>	Location:	Italia, Europe		
Sub-Supplier:	M/s Paharpur Cooling Towers Ltd / M/s ARC Insulation & Insulators (P) Ltd	Location:	Kolkata, West Bengal, India		
P.O. Number:	1448 / M / H1660 -Ver :1	Rev.	1	Date	03.05.2019
Sub-Supplier P.O. Number:	NA (PCT Job Ref. No.:X19-210010BC) / 19HPO6425 & 19HPO6426	Rev.	...	Date	NA / 12.09.19

## II. Visit Details:

NOI/E-mail Ref:	e-mail confirmation by PCTL (Mr D Dutta) & informed to client (Mr Massimiliano Stolco)		Date:	30.09.19
Inspection Location:	Vill- Ramdevpur, PO-Bawali, Dist-24 Pgs (S), West Bengal, India			
<b>Contact Details</b>				
Supplier	Name	...	Phone	...
Sub Supplier	Name	Mr Debmalaya Datta / Mr Subhadip Roy	Phone	+91 9051818189 / +91 9748991152
Visit Date(s)	01.10.19			
Inspection Stage	<input type="checkbox"/> Stage <input type="checkbox"/> Final <input checked="" type="checkbox"/> Pre Dispatch			
P.O. Order Status	<input type="checkbox"/> Completed <input checked="" type="checkbox"/> Partially Completed			

## III. a). Inspected Items ( Annexure may be prepared, if required)

Sr. No. / PO Item No.	Description	P.O. Qty. (BM QTY)	Inspected Qty.	Accepted Qty.	Rejected Qty.	Hold Qty.
...	<b>Pre dispatch of materials inspection &amp; availability verification FOR CT # 2 &amp; CT # 3 (COOLING TOWER Srl. No. : CT 26302 &amp; 26303)</b>					
	Header Pipe 19-21-0010B / F/04/01 (PCTL SOL No 4202)	5	5	5		
	Header Pipe 19-21-0010B / F/04/02 (PCTL SOL No 4203)	5	5	5		
	Vent Pipe 19-21-0010B / F/04/03 (PCTL SOL No 4204)	5	5	5		
	Header Pipe 19-21-0010C / F/04/01 (PCTL SOL No 7202)	3	3	3		
	Header Pipe 19-21-0010B / F/04/02 (PCTL SOL No 7203)	3	3	3		
	Vent Pipe 19-21-0010B / F/04/03 (PCTL SOL No 7204)	3	3	3		



# INSPECTION REPORT

b). Offered condition:  
Materials offered as per attached site offer List for inspection.

## IV. Summary of Inspection Activities Performed:

### a) Reference Documents

Document No.	Rev	Title	Approval Status	Document Supplied by
1448 / M / H1660; Ver :1; Dtd 03.05.19	0	PO Copy (for Ref.)	Yes	(Client)
19HPO6425 & 19HPO6426, Dtd 12/09/19		Sub PO Copy	...	(Vendor)
19-210010/QAP/01, Dtd 15/05/2019	00	QAP for FRP Header Pipe	Yes	(Client)
Offer List Dated 01.10.19	...	Materials Offer List	Yes	(Client)
19-21-0010B/F/04 & 19-21- 0010C/F/04		PCTL Intenal Drawings for Header & Vent pipes	Yes	(Vendor)
H1660SA002, Issue -3, Dt 29.04.19	3	TDS	Yes	(Client)
Inspection Call		e-mail confirmation by PCTL (Mr D Dutta) & informed to client (Mr Massimiliano Stolco)	Yes	(Vendor)

b) Previous report reference, if any : Not Applicable

### c) Inspection, Measuring and Test Equipment :

Sr. No.	Description	ID No	Make	Type	Range	Calibration Validity	Traceability to NABL/NPL
1	Steel Tape	ARC-16	GJ FML	Analog	0-15000mm	01.08.20	yes
2	Vernier Caliper	GL802800	Forbes	Analog	0-300 mm	01.08.20	Yes
3	Pie Tape	ARC-07	Krystat	Analog	300-700mm	01.08.20	Yes
4	Pie Tape	ARC-08	Krystat	Analog	700-1100mm	01.08.20	Yes

a) Accuracy of measurements ensured - Yes

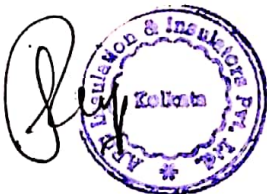
b). Test witnessed at NABL Approved Laboratory - Yes  No  NA

If Yes, Verify and note the NABL certificate number and its validity.


If No, Verify the facilities as per check list: TQS-IS-CL-02\*\*

\*\*This is applicable for tests witnessed at unapproved Laboratories/manufacturing facility.

(Tick applicable clause)



Unit.  
01/10/19





# INSPECTION REPORT

d) ITP/QAP/MQP –Activities: (H-Hold, W- witness, R- Review, S- Surveillance) :

ITP/QAP Clause	Inspection activity as per QAP/ITP.	H/W/R/S	Quantum of Check
C5.3	Visual & Dimensional Check	W	Spot
C5.2	Declaration of Compliance	R	-
C5.1	Material Certificate	R	-

e) Inspection Activity Narrative Summation:

**Materials are offered in stacked condition at PCTL sub vendor works (as per attached material offer list).**

**Following inspection activities carried out:-**

**(1) Visual Inspection (QAP Clause No.: C5.3) :-**

Offered materials are visually checked for surface condition, workmanship, appearance and found satisfactory. All the materials are stacked as per supply quantity. Markings of Materials Tag Nos not found on individual pipes.

**(2) Dimensional Inspection (QAP Clause No.: C5.3) :-**

As per QAP requirement, randomly selected pipes of each types dimensions are verified as per PCTL internal drawings and found within the acceptable limits.

**(3) Documents Review (QAP Clause No.: C5.1 & C5.2) :-**

As per QAP requirement, Vendor forwarded - Material Test Certificates, Internal dimensions reports, Certificate of Compliance Report and those are reviewed and found in order. Calibration of measuring instruments verified and attached.

**(4) Remarks :-**

- (i) **As per QAP requirements Marking balance of each pipes.**
- (ii) **As per QAP requirements Packing also not started by vendor. QAP Clause No C5.4 Packing and Marking could not be checked. However informed to vendor those activities to be completed as per TDS requirements and documents to be submitted.**

f). Record Notes/ Details of discussion with Client : Not Applicable




*Handwritten signature*  
**TPL**  
**635**  
 01/04/19

# INSPECTION REPORT

**g) Non-Conformance /Issues : Not Applicable**

Sr. No.	Description of Component	Description of Non-Conformance / Issues

**h) Identification:**

<b>Location of Stamping:</b> Signed & Stamped Paper Tag affixed randomly	<b>Specimen</b> <input type="checkbox"/> Metal Stamp <input checked="" type="checkbox"/> Sticker <input type="checkbox"/> Marking	

Note: ...

**V. Conclusion:**

With respect to above inspection observations the inspected materials are found Acceptable and release for further process (marking, packing & shipment etc).  
**(Note the above Remarks Points : e - 4- i & ii)..**


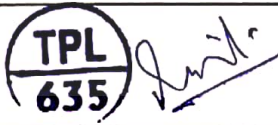
**VI. Attachments:**

Sr. No.	Descriptions	No of Pages
1	Reviewed Documents	
2	Inspection Photographs	

**VII. Safety Compliance:**

a). Safety PPE Used: Safety Shoe  Helmet  Goggles  Ear Plugs  Nose mask  Hand Gloves

**VIII. IRN Issued with this Report:**  Yes  No

Supplier / Sub Supplier	Tata Projects Ltd	Client / Client Representative
Subhadip Roy 		
<b>Signature &amp; date:</b> 01.10.19*	<b>Signature &amp; date:</b> 01.10.19	<b>Signature &amp; date:</b>
<b>Name :</b> Mr Subhadip Roy	<b>Name:</b> Indrajit Maitra	<b>Name:</b>
<p><b>Liability:</b> Client/vendor/supplier/manufacturer shall note that this inspection report is issued without prejudice to contractual obligations of the vendor/supplier/manufacturer and does not relieve him from the guarantee and obligations set forth in the purchase order and other contractual documents. It should also be noted that in all cases where the test certificate/inspection reports issued by the vendor/supplier/laboratory are reviewed by the surveyor for conformity to the requirements of the standard/specification, the responsibility for the accuracy and validity of the inspection/test results lies with the issuer of the said certificate/report.</p>		

# ARC INSULATIONS AND INSULATORS PVT LTD



CLIENT	PAHARPUR COOLING TOWER LTD	DATE	01.10.2019	SHEET No.	1
TITLE	GRP HEADER PIPE	PO NO	19HP06426		
PROJECT	Siderdraulic System - Mexico Project	CUSTOMER	SIDERIDRAULIC SYSTEM S.P.A		
DRAWING NUMBER	19-21-0010C/F/04 REV - 0	TOTAL NO SETS	3		

## JOINT INSPECTION REPORT

### PART -1 PIPE DIMENSION REPORT

DESCRIPTION	SIZE	OD(MM)	THICKNESS(MM)	LENGTH(MM)
PIPE		SPECIFIED	OBSERVED	SPECIFIED
	SET 1	700	716	716.4
	SET 2	700	716	717
				8
				8.5
				5902.0

### PART 2 -FLANGE DIMENSION REPORT

DESCRIPTION	SIZE	OD	BCD	NOH	HOLE DIA	THK	NB	OD	PCD	NO OF HOLES	HOLE DIA	THK
FLANGES		SPECIFIED	OBSERVED									
	SET 1	700	927	864	28	35	62	700	927	864	28	36
												63

### PART -3 VENT PIPE DIMENSION REPORT



DESCRIPTION	SIZE	OD(MM)	THICKNESS(MM)	LENGTH(MM)
PIPE		SPECIFIED	OBSERVED	SPECIFIED
	SET 1	200	210	210.4
				5
				5.2
				2200

### PART 4 VENT PIPE FLANGE DIMENSION REPORT

DESCRIPTION	SIZE	OD	BCD	NOH	HOLE DIA	THK	NB	OD	PCD	NO OF HOLES	HOLE DIA	THK
PIPE		SPECIFIED	OBSERVED									
	SET 1	200	343	298.5	8	23	26	200	343	298.5	8	24
												27
	SET 2	200	343	298.5	8	23	200	343	298.5	8	23	26

ALL DIMENSIONS ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 14402

  
  
 MR. SUBHRAJIT ROY  
 FOR, ARC INSULATION & INSULATORS PVT. LTD.

  
  
 MR. INDRAJIT MATTRA  
 FOR, TATA PROJECTS LIMITED





## ARC INSULATIONS AND INSULATORS PVT LTD

CLIENT	PAHARPUR COOLING TOWER LTD	DATE	01.10.2019	SHEET No.	2
TITLE	GRP HEADER PIPE	PO NO	19HP06426		
PROJECT	Siderraulic System - Mexico Project	CUSTOMER	SIDERDRAULIC SYSTEM S.p.A		
DRAWING NUMBER	19-21-00100C/F/04 REV - 0	TOTAL NO SETS	3		

### JOINT INSPECTION REPORT



#### PART - 5 HOLE DIMENSION REPORT



DESCRIPTION	DIA 1		LENGTH		DIA 2		LENGTH(MM)	
	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
FLANGE FACE TO 1ST HOLE	224+/-1	224	1101	1101	95+/-1	95	1101	1101
FLANGE FACE TO 2ND HOLE	224+/-1	224.5	2226	2226	95+/-1	96	2226	2226
FLANGE FACE TO 3RD HOLE	224+/-1	225	3274	3274	95+/-1	96	3274	3274
FLANGE FACE TO 4TH HOLE	224+/-1	223	4399	4399	95+/-1	95	4399	4399
FLANGE FACE TO 5TH HOLE	224+/-1	223	5601	5601	95+/-1	95	5601	5601
FLANGE FACE TO 6TH HOLE	224+/-1	224	6726	6726	95+/-1	95.5	6726	6726
FLANGE FACE TO 7TH HOLE	224+/-1	224	7774	7774	95+/-1	94	7774	7774
FLANGE FACE TO 8TH HOLE	224+/-1	224	8899	8899	95+/-1	94	8899	8899
FLANGE FACE TO 9TH HOLE	224+/-1	224.5	10101	10101	95+/-1	95	10101	10101
FLANGE FACE TO 10TH HOLE	224+/-1	223.5	11226	11226	95+/-1	96	11226	11226
FLANGE FACE TO 11TH HOLE	224+/-1	225	12274	12274	95+/-1	95.5	12274	12274
FLANGE FACE TO 12TH HOLE	224+/-1	225	13399	13399	95+/-1	94.4	13399	13399

#### PART - 6 BLIND DIMENSION REPORT

DESCRIPTION	OD		THICKNESS		LENGTH		NO. OF STIFFENER		THICKNESS OF STIFFENER	
	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
PIPE SET 1	700	700	20	22	250	250	4	4	20	21

ALL THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 14402

  
  
 MR. SUBHADRA  
 FOR: ARC INSULATION & INSULATORS PVT. LTD.

  
  
 MR. INDRAJIT MATRA  
 FOR: TATA PROJECTS LIMITED

# ARC INSULATIONS AND INSULATORS PVT LTD



CLIENT	PAHARPUR COOLING TOWER LTD	DATE	01.10.2019	SHEET No.	3
TITLE	GRP HEADER PIPE	PO NO	19HP06426		
PROJECT	Siderraulic System - Mexico Project	CUSTOMER	SIDERIDRAULIC SYSTEM S.P.A		
DRAWING	19-21-0010C/F/04 REV - 0	TOTAL NO SETS	3		

## JOINT INSPECTION REPORT

### PART -1 PIPE DIMENSION REPORT

DESCRIPTION	SIZE	OD(MM)		THICKNESS(MM)		LENGTH(MM)	
		SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
PIPE	SET 1	800	818	9	9.3	5875	5876.0
	SET 2	800	818	9	9.1	5900	5902.0

### PART 2 -FLANGE DIMENSION REPORT

DESCRIPTION	SIZE	OD(MM)		THICKNESS(MM)		LENGTH(MM)	
		SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
FLANGES	SET 1	800	1061	28	42	62	800
	FLANGE 1	800	1061	28	42	62	800

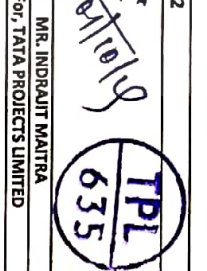
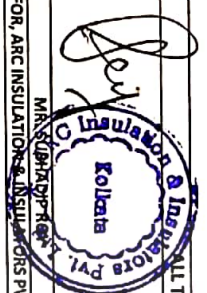
### PART -3 VENT PIPE DIMENSION REPORT

DESCRIPTION	SIZE	OD(MM)		THICKNESS(MM)		LENGTH(MM)	
		SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
PIPE	SET 1	200	210	5	5	52	2200

### PART -4 VENT PIPE FLANGE DIMENSION REPORT

DESCRIPTION	SIZE	OD(MM)		THICKNESS(MM)		LENGTH(MM)	
		SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
PIPE	SET 1	200	200	8	8	26	200
	SET 2	200	200	8	8	26	200

ALL THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 14402



FOR, ARC INSULATIONS & INSULATORS PVT LTD.

FOR, TATA PROJECTS LIMITED





## ARC INSULATIONS AND INSULATORS PVT LTD

CLIENT	PAHARPUR COOLING TOWER LTD	DATE	01.10.2019	SHEET No.	4
TITLE	GRP HEADER PIPE	PO NO	19HP06426		
PROJECT	Siderraulic System - Mexico Project	CUSTOMER	SIDERIDRAULIC SYSTEM S.p.A		
DRAWING NUMB	19-21-0010C/F/04 REV - 0	TOTAL NO SETS	3		

### JOINT INSPECTION REPORT

#### PART - 5 HOLE DIMENSION REPORT

DESCRIPTION	DIA 1		LENGTH		DIA 2		LENGTH(MM)	
	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
<b>PIPE</b>								
FLANGE FACE TO 1ST HOLE	224+/-1	224	1101	1101	95+/-1	95	1101	1101
FLANGE FACE TO 2ND HOLE	224+/-1	224.5	2226	2226	95+/-1	96	2226	2226
FLANGE FACE TO 3RD HOLE	224+/-1	225	3274	3274	95+/-1	96	3274	3274
FLANGE FACE TO 4TH HOLE	224+/-1	223	4399	4399	95+/-1	95	4399	4399
FLANGE FACE TO 5TH HOLE	224+/-1	223	5601	5601	95+/-1	95	5601	5601
FLANGE FACE TO 6TH HOLE	224+/-1	224	6726	6726	95+/-1	95.5	6726	6726
FLANGE FACE TO 7TH HOLE	224+/-1	224	7774	7774	95+/-1	94	7774	7774
FLANGE FACE TO 8TH HOLE	224+/-1	224	8899	8899	95+/-1	94	8899	8899
FLANGE FACE TO 9TH HOLE	224+/-1	224.5	10101	10101	95+/-1	95	10101	10101
FLANGE FACE TO 10TH HOLE	224+/-1	223.5	11226	11226	95+/-1	96	11226	11226

#### PART - 6 BLIND DIMENSION REPORT

DESCRIPTION	OD		THICKNESS		LENGTH		NO. OF STIFFENER		THICKNESS OF STIFFENER	
	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
<b>PIPE</b>										
SET 1	800	800	20	21	250	250	4	4	20	22

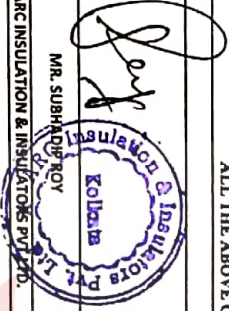
ALL THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 14402

FOR ARC INSULATION & INSULATORS PVT. LTD.

FOR TATA PROJECTS LIMITED

MR. SUBHADIP ROY

MR. INDRAJIT MAITRA







# ARC INSULATIONS AND INSULATORS PVT LTD

CLIENT: PAIHARPUR COOLING TOWER LTD	DATE: 01.10.2019	SHEET No. 1
TITLE: GRR HEADER PIPE	PO NO: 191HQ6426	
PROJEC: Siderbraic System - Mexico Project	CUSTOMER: SIDERIDRAULIC SYSTEM S.P.A	
DRAWING: 19-21-0010C/F/04 REV - 0	TOTAL NO SETS: 3	

### PART -1 PIPE DIMENSION REPORT

DESCRIPTION	SIZE	OD(MM)		THICKNESS(MM)		LENGTH(MM)
		SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	
PIPE	NET 1	700	716	8	8.2	8125
	NET 2	700	716	8	8.1	5900
	NET 3	700	716	8	8.2	8125
FLANGES	FLANGE 1	700	716	8	8.2	8125
	FLANGE 2	700	716	8	8.2	5900
	FLANGE 3	700	716	8	8.3	8125

### PART -2 FLANGE DIMENSION REPORT

DESCRIPTION	SIZE	OD(MM)		THICKNESS(MM)		LENGTH(MM)
		SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	
FLANGES	FLANGE 1	700	716	8	8.2	8125
	FLANGE 2	700	716	8	8.2	5900
	FLANGE 3	700	716	8	8.3	8125

### PART -3 VENT PIPE DIMENSION REPORT

DESCRIPTION	SIZE	OD(MM)		THICKNESS(MM)		LENGTH(MM)
		SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	
PIPE	NET 1	200	210	4	4.2	2200
	NET 2	200	210	4	4.2	2200
	NET 3	200	210	4	4.2	2200

### PART -4 VENT PIPE FLANGE DIMENSION REPORT

DESCRIPTION	SIZE	OD(MM)		THICKNESS(MM)		LENGTH(MM)
		SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	
PIPE	NET 1	200	210	4	4.2	2200
	NET 2	200	210	4	4.2	2200
	NET 3	200	210	4	4.2	2200



THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 34402

FOR ARC INSULATION ENGINEERING PRIVATE LIMITED

Mr. INDRAJIT MAITRA  
For: TATA PROJECTS LIMITED






# ARC INSULATIONS AND INSULATORS PVT LTD


CLIENT	PAHARPUR COOLING TOWER LTD	DATE	01.10.2019	SHEET No.	2
TITLE	GRP HEADER PIPE	PO NO	19HP06426		
PROJECT	Sidertrule System - Mexico Project	CUSTOMER	SIDERIDRAULIC SYSTEM S.p.A		
DRAWING NUMBER	19-21-0010C/E/04 REV - 0	TOTAL NO SETS	3		

## PART -5 HOLE DIMENSION REPORT

DESCRIPTION	DIA 1				DIA 2			
	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
<b>PIPE</b>								
FLANGE FACE TO 1ST HOLE	224+/-1	224	1101	1101	95+/-1	95	1101	1101
FLANGE FACE TO 2ND HOLE	224+/-1	224	2226	2226	95+/-1	95	2226	2226
FLANGE FACE TO 3RD HOLE	224+/-1	224	3274	3274	95+/-1	96	3274	3274
FLANGE FACE TO 4TH HOLE	224+/-1	224	4399	4399	95+/-1	95.5	4399	4399
FLANGE FACE TO 5TH HOLE	224+/-1	224.5	5601	5601	95+/-1	94.4	5601	5601
FLANGE FACE TO 6TH HOLE	224+/-1	223.5	6726	6726	95+/-1	95	6726	6726
FLANGE FACE TO 7TH HOLE	224+/-1	225	7774	7774	95+/-1	96	7774	7774
FLANGE FACE TO 8TH HOLE	224+/-1	224	8899	8899	95+/-1	96	8899	8899
FLANGE FACE TO 9TH HOLE	224+/-1	224.5	10101	10101	95+/-1	95	10101	10101
FLANGE FACE TO 10TH HOLE	224+/-1	223.5	11226	11226	95+/-1	96	11226	11226
FLANGE FACE TO 11TH HOLE	224+/-1	225	12274	12274	95+/-1	95.5	12274	12274
FLANGE FACE TO 12TH HOLE	224+/-1	225	13399	13399	95+/-1	94.4	13399	13399

ALL THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 14402

  
 Insulation & Insulators PVT. Ltd.  
 Kolkata  
 MR. SUBHADIP ROY

  
 TPL  
 635  
 MR. INDRAJIT MAITRA  
 For, TATA PROJECTS LIMITED

FOR, ARC INSULATION & INSULATORS PVT LTD.

FOR, TATA PROJECTS LIMITED





# ARC INSULATIONS AND INSULATORS PVT LTD

CLIENT	PAHARPUR COOLING TOWER LTD	DATE	01.10.2019	SHEET No.	3
TITLE	GRP HEADER PIPE	PO NO	19HP064426		
PROJECT	Sideraultic System - Mexico Project	CUSTOMER	SIDERIDRAULIC SYSTEM S.p.A		
DRAWING NUMBER	19-21-0010C/E/04 REV - 0	TOTAL NO SETS	3		

### PART - 5 HOLE DIMENSION REPORT

DESCRIPTION	DIA 1		LENGTH		DIA 2		LENGTH(MM)	
	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
<b>PIPE</b>								
FLANGE FACE TO 1ST HOLE	224+/-1	224	1101	1101	95+/-1	95	1101	1101
FLANGE FACE TO 2ND HOLE	224+/-1	224.5	2226	2226	95+/-1	96	2226	2226
FLANGE FACE TO 3RD HOLE	224+/-1	225	3274	3274	95+/-1	96	3274	3274
FLANGE FACE TO 4TH HOLE	224+/-1	223	4399	4399	95+/-1	95	4399	4399
FLANGE FACE TO 5TH HOLE	224+/-1	223	5601	5601	95+/-1	95	5601	5601
FLANGE FACE TO 6TH HOLE	224+/-1	224	6726	6726	95+/-1	95.5	6726	6726
FLANGE FACE TO 7TH HOLE	224+/-1	224	7774	7774	95+/-1	94	7774	7774
FLANGE FACE TO 8TH HOLE	224+/-1	224	8899	8899	95+/-1	94	8899	8899
FLANGE FACE TO 9TH HOLE	224+/-1	224.5	10101	10101	95+/-1	95	10101	10101
FLANGE FACE TO 10TH HOLE	224+/-1	223.5	11226	11226	95+/-1	96	11226	11226
FLANGE FACE TO 11TH HOLE	224+/-1	225	12274	12274	95+/-1	95.5	12274	12274
FLANGE FACE TO 12TH HOLE	224+/-1	225	13399	13399	95+/-1	94.4	13399	13399

### PART - 6 BLIND DIMENSION REPORT

DESCRIPTION	OD		THICKNESS		LENGTH		NO. OF STIFFENER		THICKNESS OF STIFFENER	
	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
<b>PIPE</b>										
SET 1	700	700	20	22	250	250	4	4	20	21
SET 2	700	700	20	21	250	250	4	4	20	20
SET 3	700	700	20	22	250	250	4	4	20	21

ALL THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 14402



MR. SUPRIYA MAITRA



TPPL  
635

MR. INDRAJIT MAITHRA

For, TATA PROJECTS LIMITED

FOR, ARC INSULATION & INSULATORS PVT. LTD.

# ARC INSULATIONS AND INSULATORS PVT LTD



CLIENT	PAHARPUR COOLING TOWER LTD	DATE	01.10.2019	SHEET No.	4
TITLE	GRP HEADER PIPE	PO NO	19HPO6426		
PROJEC	Siderfrule System - Mexico Project	CUSTOMER	SIDERIDRAULIC SYSTEM S.p.A		
DRAWIN	19-21-0010C/E/04 REV - 0	TOTAL NO SETS	3		

DESCRIPTION		SIZE	OD(MM)	PART -1 PIPE DIMENSION REPORT		THICKNESS(MM)		LENGTH(MM)	
				SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
PIPE	SET 1	OF 1	800	818	818.2	9	9.1	5875	5876.0
	SET 2	OF 1	800	818	818.4	9	9.2	5900	5902.0
	SET 1	OF 2	800	818	818.6	9	9.3	5875	5876.0
	SET 2	OF 2	800	818	818.6	9	9.3	5900	5901.0
	SET 1	OF 3	800	818	818.2	9	9.1	5875	5877.0
	SET 2	OF 3	800	818	818.2	9	9.1	5900	5901.0
SET 4	OF 3	800	818	818.2	9	9.1	5875	5876.0	
	OF 3	800	818	818	9	9.0	5900	5901.0	
	OF 3	800	818	818	9	9.0	5875	5877.0	
SET 5	OF 3	800	818	818.2	9	9.1	5900	5901.0	

DESCRIPTION		PART 2 -FLANGE DIMENSION REPORT											
		SPECIFIED					OBSERVED						
FLANGES		NB	OD	BCD	NOH	HOLE DIA	THK	NB	OD	PCD	NO OF HOLES	HOLE DIA	THK
SET 1	FLANGE 1	800	1061	978	28	42	62	800	1061	978	28	43	63
SET 2	FLANGE 2	800	1061	978	28	42	62	800	1061	978	28	42	63
SET 3	FLANGE 3	800	1061	978	28	42	62	800	1061	978	28	43	63
SET 4	FLANGE 4	800	1061	978	28	42	62	800	1061	978	28	42	64
SET 5	FLANGE 5	800	1061	978	28	42	62	800	1061	978	28	42	62

ALL THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 14402

MR. SUBHADIP ROY

FOR, ARC INSULATION & INSULATIONS PVT LTD.

MR. INDRAJIT MAITRA

FOR, TATA PROJECTS LIMITED



# ARC INSULATIONS AND INSULATORS PVT LTD



<b>CLIENT</b> PAHARPUR COOLING TOWER LTD	<b>DATE</b> 01.10.2019	<b>SHEET No.</b> 5
<b>TITLE</b> GRP HEADER PIPE	<b>PO NO</b> 19HP06426	
<b>PROJEC</b> Siderdraulic System - Mexico Project	<b>CUSTOMER</b> SIDERIDRAULIC SYSTEM S.p.A	
<b>DRAWIN</b> 19-21-0010C/F/04 REV - 0	<b>TOTAL NO SETS</b> 3	

## PART - 3 VENT PIPE DIMENSION REPORT

DESCRIPTION	SIZE	OD(MM)		THICKNESS(MM)		LENGTH(MM)	
		SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
<b>PIPE</b>							
SET 1	200	210	210.4	5	5.2	2200	2200
SET 2	200	210	210.4	5	5.2	2200	2200
SET 3	200	210	210.4	5	5.2	2200	2200
SET 4	200	210	210.4	5	5.2	2200	2200
SET 5	200	210	210.4	5	5.2	2200	2200

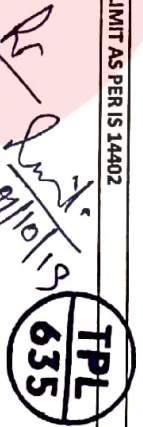
## PART - 4 VENT PIPE FLANGE DIMENSION REPORT

DESCRIPTION	NB	OD	BCD	NOH	HOLE DIA	THK	SPECIFIED		OBSERVED			
							NB	OD	PCD	NO OF HOLES	HOLE DIA	THK
<b>PIPE</b>												
SET 1	200	343	298.5	8	23	26	200	343	298.5	8	24	27
	200	343	298.5	8	23	26	200	343	298.5	8	23	26
	200	343	298.5	8	23	26	200	343	298.5	8	24	27
SET 2	200	343	298.5	8	23	26	200	343	298.5	8	23	26
	200	343	298.5	8	23	26	200	343	298.5	8	23	26
	200	343	298.5	8	23	26	200	343	298.5	8	23	26
SET 3	200	343	298.5	8	23	26	200	343	298.5	8	24	27
	200	343	298.5	8	23	26	200	343	298.5	8	23	26
	200	343	298.5	8	23	26	200	343	298.5	8	23	26
SET 4	200	343	298.5	8	23	26	200	343	298.5	8	24	27
	200	343	298.5	8	23	26	200	343	298.5	8	23	26
	200	343	298.5	8	23	26	200	343	298.5	8	23	26
SET 5	200	343	298.5	8	23	26	200	343	298.5	8	24	27
	200	343	298.5	8	23	26	200	343	298.5	8	24	27
	200	343	298.5	8	23	26	200	343	298.5	8	23	26

THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 14402

MR. SUBHADIP ROY  
FOR, ARC INSULATION & INSULATORS PVT LTD.

MR. INDRAJIT MATHRA  
FOR, TATA PROJECTS LIMITED



## ARC INSULATIONS AND INSULATORS PVT LTD

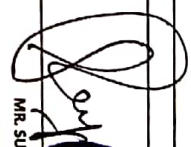


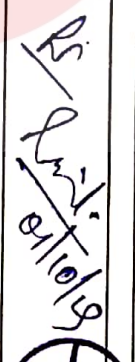
CLIENT	PAHARPUR COOLING TOWER LTD	DATE	01.10.2019	SHEET No.	6
TITLE	GRP HEADER PIPE	PO NO	19HP06426		
PROJECT	Sidertralic System - Mexico Project	CUSTOMER	SIDERIDRAULIC SYSTEM S.P.A		
DRAWING NUMB	19-2I-0010C/F/04 REV - 0	TOTAL NO SETS	3		

### PART -F HOLE DIMENSION REPORT

DESCRIPTION	DIA 1		DIA 2		LENGTH(MM)	
	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
<b>PIPE</b>						
FLANGE FACE TO 1ST HOLE	224+/-1	224	1101	1101	1101	1101
FLANGE FACE TO 2ND HOLE	224+/-1	224.5	2226	2226	2226	2226
FLANGE FACE TO 3RD HOLE	224+/-1	225	3274	3274	3274	3274
FLANGE FACE TO 4TH HOLE	224+/-1	223	4399	4399	4399	4399
FLANGE FACE TO 5TH HOLE	224+/-1	223	5601	5601	5601	5601
FLANGE FACE TO 6TH HOLE	224+/-1	224	6726	6726	6726	6726
FLANGE FACE TO 7TH HOLE	224+/-1	224	7774	7774	7774	7774
FLANGE FACE TO 8TH HOLE	224+/-1	224	8899	8899	8899	8899
FLANGE FACE TO 9TH HOLE	224+/-1	224.5	10101	10101	10101	10101
FLANGE FACE TO 10TH HOLE	224+/-1	223.5	11226	11226	11226	11226
<b>SET 1</b>						
FLANGE FACE TO 1ST HOLE	224+/-1	224	1101	1101	1101	1101
FLANGE FACE TO 2ND HOLE	224+/-1	224.5	2226	2226	2226	2226
FLANGE FACE TO 3RD HOLE	224+/-1	225	3274	3274	3274	3274
FLANGE FACE TO 4TH HOLE	224+/-1	223	4399	4399	4399	4399
FLANGE FACE TO 5TH HOLE	224+/-1	223	5601	5601	5601	5601
FLANGE FACE TO 6TH HOLE	224+/-1	224	6726	6726	6726	6726
FLANGE FACE TO 7TH HOLE	224+/-1	224	7774	7774	7774	7774
FLANGE FACE TO 8TH HOLE	224+/-1	224	8899	8899	8899	8899
FLANGE FACE TO 9TH HOLE	224+/-1	224.5	10101	10101	10101	10101
FLANGE FACE TO 10TH HOLE	224+/-1	223.5	11226	11226	11226	11226
<b>SET 2</b>						
FLANGE FACE TO 1ST HOLE	224+/-1	224	1101	1101	1101	1101
FLANGE FACE TO 2ND HOLE	224+/-1	224.5	2226	2226	2226	2226
FLANGE FACE TO 3RD HOLE	224+/-1	225	3274	3274	3274	3274
FLANGE FACE TO 4TH HOLE	224+/-1	223	4399	4399	4399	4399
FLANGE FACE TO 5TH HOLE	224+/-1	223	5601	5601	5601	5601
FLANGE FACE TO 6TH HOLE	224+/-1	224	6726	6726	6726	6726
FLANGE FACE TO 7TH HOLE	224+/-1	224	7774	7774	7774	7774
FLANGE FACE TO 8TH HOLE	224+/-1	224	8899	8899	8899	8899
FLANGE FACE TO 9TH HOLE	224+/-1	224.5	10101	10101	10101	10101
FLANGE FACE TO 10TH HOLE	224+/-1	223.5	11226	11226	11226	11226

ALL THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 14402

  
 MR. SUBRA DEY  
 Insulation & Insul. PVT. LTD.  
 0619A

  
 MR. INDRAJIT MAATRA  
 TPL  
 635

FOR, ARC INSULATION & INSULATORS PVT LTD.

FOR, TATA PROJECTS LIMITED



# ARC INSULATIONS AND INSULATORS PVT LTD



CLIENT	PAHARPUR COOLING TOWER LTD	DATE	01.10.2019	SHEET No.	7
TITLE	GRP HEADER PIPE	PO NO	191HP06426		
PROJECT	Hydraulic System - Mexico Project	CUSTOMER	SIDERIDRAULIC SYSTEM S.A		
DRAWING NUMB	19-21-0010C/E/04 REV - 0	TOTAL NO SETS	3		

## PART - 4-HOLE DIMENSION REPORT

DESCRIPTION	DIA 1		SPECIFIED	OBSERVED	LENGTH	DIA 2		SPECIFIED	OBSERVED	LENGTH(MM)	
	SPECIFIED	OBSERVED				SPECIFIED	OBSERVED			SPECIFIED	OBSERVED
<b>PIPE</b>											
FLANGE FACE TO 1ST HOLE	224/±1	224	1101	1101	98±/±1	95	1101	1101	1101		
FLANGE FACE TO 2ND HOLE	224/±1	224.5	2226	2226	98±/±1	96	2226	2226	2226		
FLANGE FACE TO 3RD HOLE	224/±1	225	2274	2274	98±/±1	96	2274	2274	2274		
FLANGE FACE TO 4TH HOLE	224/±1	223	4399	4399	98±/±1	95	4399	4399	4399		
FLANGE FACE TO 5TH HOLE	224/±1	223	5601	5601	98±/±1	95	5601	5601	5601		
FLANGE FACE TO 6TH HOLE	224/±1	224	6726	6726	98±/±1	95.8	6726	6726	6726		
FLANGE FACE TO 7TH HOLE	224/±1	224	7774	7774	98±/±1	94	7774	7774	7774		
FLANGE FACE TO 8TH HOLE	224/±1	224	8899	8899	98±/±1	94	8899	8899	8899		
FLANGE FACE TO 9TH HOLE	224/±1	224.5	10101	10101	98±/±1	95	10101	10101	10101		
FLANGE FACE TO 10TH HOLE	224/±1	223.5	11226	11226	98±/±1	96	11226	11226	11226		
FLANGE FACE TO 11TH HOLE	224/±1	224	1101	1101	98±/±1	95	1101	1101	1101		
FLANGE FACE TO 12TH HOLE	224/±1	224.5	2226	2226	98±/±1	96	2226	2226	2226		
FLANGE FACE TO 13TH HOLE	224/±1	224	2274	2274	98±/±1	96	2274	2274	2274		
FLANGE FACE TO 14TH HOLE	224/±1	223	4399	4399	98±/±1	95	4399	4399	4399		
FLANGE FACE TO 15TH HOLE	224/±1	223	5601	5601	98±/±1	95	5601	5601	5601		
FLANGE FACE TO 16TH HOLE	224/±1	224	6726	6726	98±/±1	95.8	6726	6726	6726		
FLANGE FACE TO 17TH HOLE	224/±1	224	7774	7774	98±/±1	94	7774	7774	7774		
FLANGE FACE TO 18TH HOLE	224/±1	224.5	8899	8899	98±/±1	94	8899	8899	8899		
FLANGE FACE TO 19TH HOLE	224/±1	224.5	10101	10101	98±/±1	95	10101	10101	10101		
FLANGE FACE TO 20TH HOLE	224/±1	223.5	11226	11226	98±/±1	96	11226	11226	11226		

ALL THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 1400



**TPPL**
  
**635**

FOR INSULATION & INSULATORS PARTS

FOR TANK PRODUCTS LIMITED

# ARC INSULATIONS AND INSULATORS PVT LTD



CLIENT	PAHARPUR COOLING TOWER LTD	DATE	01.10.2019	SHEET No.	8
TITLE	GRP HEADER PIPE	PO NO	19HP06426		
PROJECT	Siderulic System - Mexico Project	CUSTOMER	SIDERIDRAULIC SYSTEM S.P.A		
DRAWING NUMB	19-21-0010C/F/04 REV - 0	TOTAL NO SETS	3		

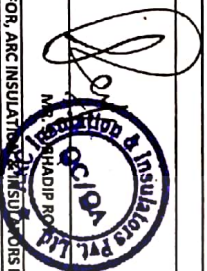
## PART - 5 HOLE DIMENSION REPORT

DESCRIPTION	DIA 1		LENGTH		DIA 2		LENGTH(MM)	
	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
PIPE								
FLANGE FACE TO 1ST HOLE	224+/-1	224	1101	1101	95+/-1	95	1101	1101
FLANGE FACE TO 2ND HOLE	224+/-1	224.5	2226	2226	95+/-1	96	2226	2226
FLANGE FACE TO 3RD HOLE	224+/-1	225	3274	3274	95+/-1	96	3274	3274
FLANGE FACE TO 4TH HOLE	224+/-1	223	4399	4399	95+/-1	95	4399	4399
FLANGE FACE TO 5TH HOLE	224+/-1	223	5601	5601	95+/-1	95	5601	5601
FLANGE FACE TO 6TH HOLE	224+/-1	224	6726	6726	95+/-1	95.5	6726	6726
FLANGE FACE TO 7TH HOLE	224+/-1	224	7774	7774	95+/-1	94	7774	7774
FLANGE FACE TO 8TH HOLE	224+/-1	224	8899	8899	95+/-1	94	8899	8899
FLANGE FACE TO 9TH HOLE	224+/-1	224.5	10101	10101	95+/-1	95	10101	10101
FLANGE FACE TO 10TH HOLE	224+/-1	223.5	11226	11226	95+/-1	96	11226	11226

## PART - 6 BLIND DIMENSION REPORT

DESCRIPTION	OD		THICKNESS		LENGTH		NO. OF STIFFENER		THICKNESS OF STIFFENER	
	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED	SPECIFIED	OBSERVED
PIPE										
SET 1	800	800	20	21	250	250	4	4	20	22
SET 2	800	800	20	22	250	250	4	4	20	21
SET 3	800	800	20	20	250	250	4	4	20	20
SET 4	800	800	20	21	250	250	4	4	20	22
SET 5	800	800	20	20	250	250	4	4	20	21

ALL THE ABOVE OBSERVED DIMENSIONS ARE UNDER TOLERANCE LIMIT AS PER IS 14402



MR. INDRAJIT MAITRA  
 FOR TATA PROJECTS LIMITED

FOR, ARC INSULATIONS AND INSULATORS PVT LTD.

FOR, TATA PROJECTS LIMITED





# CREST COMPOSITES & PLASTICS PRIVATE LIMITED

CIN NO. : U25209GJ1989PTC012778.

Regd. Office & Works : Survey No. : 609, Village : Shetra, Tal. & Dist. : Kheda-387 560. Gujarat (India).

Tel. : +91-9909944547 E-mail : cpol@crestcomposites.com

4

REF.NO.: 16/7

## TEST REPORT

GRADE : C'POL - 2601 [ TEREPHTHALIC RESIN ]

B.NO. : T6-86

D.O.M. : 25.06.2019

INV. NO. : 1750	CUSTOMER NAME : ARC INSULATIONS AND INSULATORS		
DATE : 31.07.19	ORDER NO. : ORD/19-20/22 DT.27.07.19		
QTY. : 10120 KGS			
SR. NO.	PROPERTY	OBSERVATION	SPECIFICATION
1	Acid Value ( mg. KOH/g. )	15.9	17 ± 03
2	Viscosity @ 25° C (cps) (B.F. RV-Viscometer, Spindle No.2, RPM-50)	400	350 ± 20%
3	Specific Gravity @ 25° C	1.12	1.12 ± 0.01
4	Volatile Content (%)	39.3	38 ± 03
5	Solid Content (%)	60.7	62 ± 03
6	Gel time @ 25°C (min) *(100gms Resin + 1ml Acc.A + 1.5ml Cat.C)	18	15 ± 20%
	Peak Exotherm (°C)	187	> 140
	Reactivity(Time to peak)(min)	26	< 40
<b>Expected Mechanical Properties Of Post Cured Resin</b>			
	Tensile strength	60 mpa	
	Elongation at break	3%	
	Barcol hardness	40	
	Remarks	O.K.	

\* Acc.A - ACCELERATOR - 3 % Cobalt solution of Cobalt Octoate.

Cat.C - CATALYST - 50 % Solution of MEKP ( 9% Active Oxygen ) (AKZONOBEL BUTANOX M-50)

> Use of other MEKP catalysts or additives may result in different gelltimes.

> Properties No. 1 to 5 are tested in accordance with methods described in IS 6746 : 1994.

**MATERIAL OF LIMITED SHELF LIFE.**

**USE BEFORE DATE: 24/09/2019 ( If it is stored below 25°C )**

NOTE : The user is held to check the quality, safety and all other properties of our product prior to use for his own purpose under his operating condition. We can not assume any responsibility for performance or results obtained through the use of our product here in described nor do we accept any liability for loss or damages directly or indirectly caused by our product.

QC - MANAGER

*Handwritten signature*  
*Handwritten signature*  
**TPL**  
**635**



*Handwritten signature*  
*Handwritten signature*  
12/8/19

ADMINISTRATIVE OFFICE : 808, Abhishree Adroit, Near Mansi Circle, Judges Bunglow Road, Vastrapur. Ahmedabad - 380 054. Tel. : +91-79-40030991 M. : +91-7573002339 Web : www.crestcomposites.com

## TEST CERTIFICATE

T.C.No.: S70  
Date: 01.08.2019

Product Description : DR SE 1043 24-2400 BP64D  
Glass : " ECR "  
Material : 609473  
Packing List No. : 90091981 dtd. 01.08.2019  
Quantity : 9433.05 Kgs.

## TEST RESULTS

Sl. No.	Test	Standard Value	Observed Value
1.	Filament diameter, micrometer	From 23.5 up to but not including 24.5	24.2
2.	Tex (gms/Km)	2400 ± 8%	2420
3.	As per clause 6.3 of IS 11320	The glass fibre rovings shall have proper stiffness of strands and dispersion property and shall be free from unevenness of binder, contamination, combination of monofilaments with larger diameters etc.	Conforms
4.	Tensile breaking load, N	Over 940	1052
5.	As per clause 6.5 of IS 11320	The rovings shall be free from oil and grease spots and any other contamination and shall be uniform in colour.	Conforms
6.	Moisture content (% by Mass)	0.3 % Max	0.04
7.	Loss on ignition, (% by Mass)	0.5 ± 0.20	0.52
8.	Cross breaking strength, reinforced polyester rod, MPa	Dry-585 Minimum Wet-490 Minimum	760 675
9.	Conductivity of water extract, mS/m	12.5 Max	0.78

The above tests conform to IS – 11320:1997  
for GOA GLASS FIBRE LTD;

  
Luciano Lobo  
Dy. Manager - QA

F18 - 34 - 3

Goa Glass Fibre Ltd.

218/ 220, NH - 17, Colvale Village, Bardez, Goa - 403513.

Tel: +91 832-2299884/ 85/ 86 | FAX: +91 - 832 - 2299887 | Email: info@binaniglassfibre.com /

Binani\_goa@sanichannel.in | www.binani.com

CIN:U26102WB1996PLC 080099

## Consignee:-

ARC Insulation &amp; Insulators Pvt.Ltd.

Sanjua Maheshtala Road,

Village Ramdevpur

P.O.Bawali,P.S.Bishnupur


24 Parganas 743394, West Bengal.

Invoice No: RV2019001019 Dated 01.08.2019  
91077839

L C No: 0505219LC0000450 Dated. 31.07.2019

PI NO GGFL/SA GOA/2019 2020/104 Dated. 24/07/2019

DRAWN UNDER LC ISSUED BY STATE BANK OF INDIA,  
TFCPC A BLOCK SAMRIDDHI BHAVAN KOLKATA 700001

  
TPL  
435  
01/10/19





**ONS IMPEX**  
Traders Private Limited

**Certificate of Analysis**

Ref. Order no: ONS/IMP/18-19/032 Invoice No.: 218PTB236

Description of Goods:  
SURFACE TISSUE 30G/M2, WIDTH 1000MM

Quantity: 150000M2(500CTN)

Test Item	Unit	Standard Value	Test Average Data
Area Weight	G/m2	30.0+/-3.0	30.1
Binder content	%	8.0 Max	6.16
Tensile strength	N/5cm	20.0 Min.	45
Wetting Time	Second	10.0 Max	7
Water content	%	0.5 Max	0.33
Width	mm	1000	1000
Roll Length	m	300	300

**WE HEREBY CERTIFY THAT THE TEST RESULT OF THE STIPULATED GOODS ARE IN CONFORMITY WITH THE SPECIFICATION**

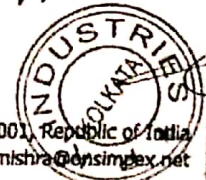
TPL  
635  
Date: 01/10/19



*[Handwritten signature]*

This copy of TC is issued against our GST Invoice no. 201920P0141 dated 9th May 2019 on ARC Insulation & Insulators Pvt Ltd. 24 Pgs @

Including, inv. no. 201920P0242 dt. 12.06.19.



Registered Office : 312, Apeejay House, 130, Bombay Samachar Marg, Fort, Mumbai - 400 001, Republic of India  
Telephone : + 91 22 2282 9073 / 2282 9074 Facsimile : +91 22 2282 9075 Email : opmishra@onsimpe.net  
CIN NUMBER - U51101MH2014PTC258296

**TEST CERTIFICATE**

T.C.No.: 1045  
 Date: 08.04.2019

Product Description : CSM EM 1011 450 - 100 BST CTC  
 Glass : " ECR "  
 Material : 600130  
 Packing List No. : 90088138 dtd. 08.04.2019  
 Quantity : 9989.34 Kgs.

**TEST RESULTS**

Sl. No.	Test	Standard Value	Observed Value
1.	Width (cm)	100 + 3 / -0	100
2.	Moisture content (% by Mass)	0.20 % max.	0.16
3.	Loss on ignition (% by Mass)	4.0 +/- 2.0	3.94
4.	Average mass per unit area (gms/M <sup>2</sup> )	450 +/- 7%	440
5.	% variation in mass/area Individual sample	< 19 %	08.90
	Range	< 22 %	11.10
6.	Flexural strength of laminate (MPa)		
	1. Dry 2. Wet	180 min. 135 min.	236 195

The above tests conform to IS - 11551 & BS - 14118

for GOA GLASS FIBRE LTD;

*Signature*  
  
 Authorised Signatory

F18 - 34 - 3

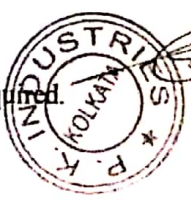
Note: This is a system generated test certificate and hence, no signature is required.


**Goa Glass Fibre Ltd.**

218/ 220, NH - 17, Colvale Village, Bardez, Goa - 403513.  
 Tel: +91-832-2299884/ 85 / 86 | FAX: +91 - 832 - 2299887 | Email: info@binaniglassfibre.com / Binani\_goa @sancharnet.in | www.binani.com

CIN: U26102WB1996PLC 080099

*This copy of TC is issued against our GST Invoice no. 2019200141 dated 9.05.19 on ARC Insulation & Insulators Pvt Ltd, South 24 Pgs.*

*Signature*  


*As per Invoice 01/01/19*  




<i>D</i>	<b>DEESAWALA RUBBER INDUSTRIES</b>	QF/DRI/QC/06-00
	HYDERABAD	Date-28.09.2019
	<b>PHYSICAL TEST REPORT OF REKA GASKET</b>	

T.C. NO. : DRI /ARC/01  
 Production Name : EPDM Reka Rings  
 Customer Name : ARC INSULATION & INSULATORS PVT.LTD  
 Size : DN 700MM, DN 800MM  
 Quantity : 8 Nos, 12 Nos  
 Invoice no & Date : 1217/25.09.2019  
 Order No & Date : ORD/19-20/32  
 Batch No : 24 SEP 19

Sl. No	Descriptions	Test Method	Specification	Observed
			EPDM	
1	Polymer		50±5	50-51
2	Hardness IRHD/Shore A	ISO 48	11 Min	12.85
3	Tensile strength Mpa	ISO 37	400 Min	620
4	Elongation @ Break%	ISO 37		
5	Compression Test	ISO 815	25% Max	13.54
a	at 70°C for 24 hrs		12% Max	9.46
b	at 23°C for 70 hrs		40% Max	26.48
c	at -10°C for 70 hrs			
6	Ageing at 70°C for 168 hrs	ISO 188	±20 %	-3.65
a	Change in Tensile strength %		-30 To +10 %	-4.52
b	Change in Elongation at break %		-5 to +8	+2
c	Change in Hardness			
7	Water Immersion Change in Volume Water for 7DAYS @70°C	ISO 1817	-0 to +8	+1.06
8	Stress Relaxation, In Compression for 7days @23°C %	ISO 3384	18 Max	11.26
9	Cold Resistance Increase in Hardness 72 Hours @0°C		+5 Max	+2
10	Ozone Resistance at 50±5 pphm.40±2°C for 48+0,-2 hrs	ISO 1413-1	No Cracks	No Cracks

Remark: The above results are in conforming to EN 681-1, ISO 4633 & IS 5382

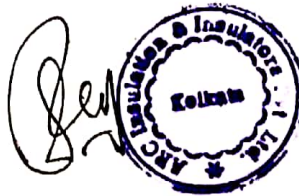
Tested By *[Signature]*



Approved By *[Signature]*

Regd. Office  
 5-5-65/S-12A, SA Trade centre,  
 Ranigunj, 'X' Roads,  
 Secunderabad- 3.  
 Phone- 91-40-66323288  
 E-mail : deesarings@yahoo.co.in

Works  
 Plot No. 10, Road No: D,  
 IDA Bala Nagar, Hyderabad 500037  
 Phone : 91-40-65991626  
 E-mail : deesarings@yahoo.co.in



*[Signature]*  
 TPL 635  
 01/10/19



# ARC

Insulations & Insulators (P) Ltd.

GSTIN - 19AAHCA6355Q1ZX

CIN No.: U18109WB2008PTC129263

Manufacturer of Fiberglass Composites

## Certificate of Confirmation

Date: 01.10.2019

PCTL P.O No. Ref. No.: 19HPO6425 & 19HPO6426

PCT Job Ref. No.: 19-2I0010B & 19-2I0010C

Client: Sideridraulic System S.p.A

Customer: Paharpur Cooling Tower Limited

Sl. No.	SOL	Description of Item	QP/Ins. Category	Specification/Size	Name & Address of Mfg.	Quantity Offer	Quantity Accepted	Unit	Remarks
01	4202	Header Pipe 19-2I-0010B/F/04-02	QAP	As Per Customer Drawing	ARC Insulation & Insulators Pvt. Ltd.	5	5	Nos	OK
02	4203	Vent Pipe 19-2I-0010B/F/04-03	QAP	As Per Customer Drawing	ARC Insulation & Insulators Pvt. Ltd.	5	5	Nos	OK
03	4204	Header Pipe 19-2I-0010B/F/04-01	QAP	As Per Customer Drawing	ARC Insulation & Insulators Pvt. Ltd.	5	5	Nos	OK
04	7202	Header Pipe 19-2I-0010C/F/04-01	QAP	As Per Customer Drawing	ARC Insulation & Insulators Pvt. Ltd.	3	3	Nos	OK
05	7203	Vent Pipe 19-2I-0010C/F/04-02	QAP	As Per Customer Drawing	ARC Insulation & Insulators Pvt. Ltd.	3	3	Nos	OK
06	7204	Vent Pipe 19-2I-0010C/F/04-03	QAP	As Per Customer Drawing	ARC Insulation & Insulators Pvt. Ltd.	3	3	Nos	OK

It is hereby confirmed that above mentioned Component / Items were Manufactured and Tested in accordance with drawing as referred above. We also undertake that, any nonconformity / Problem Observed during commissioning of the Component / Items shall be solely our responsibility.



TPL  
635  
Res  
Smt.  
01/10/19



Correspondence:  
South City Apartments, T-1, Flat-25B, 375, P.A. Shah Road, Kolkata - 700088, Behind South City Mall, M : 9748708809 / 8831031917

Works & Regd. Office :  
Village Ramdevpur, P.O. Bawali, P.S. Bishnupur, 24 Pgs. (S), Pin - 743384, West Bengal, Tel: +81 33 2495 4231, Fax: 2495 4233  
Mobile : 9831031917, 9748708809, Email: manishbajoria203@hotmail.com. www.arcinsulations.com