केन्द्रीय पेट्रोरसायन अभियांत्रिकी एवं

(पूर्व में केन्द्रीय प्लास्टिक्स इंजीनियरिंग एवं तकनीकी संस्थान)

प्रधान कार्यालय, पी. डी. आई. सेल्

रसायन एवं पेटो रसायन विभाग,

रसायन एवं उर्वरक मंत्रालय, भारत सरकार

टी. वी. के. औद्योगिक इस्टेट, गिंडी, चेन्नई - 600 032

दरभाष: 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

W.O. Centre: Kochi

Name of the Inspecting Official: R. Jeevan Ram

Camp at: M/s Electrosteel Castings Limited, Rachagunneri, Srikalahasthi, Chittoor - 517641

| Code | | | Castings Limited, Rachagunner N REPORT | i, Srikalahasthi, Chittoor - 517641 | | |
|------|---|---|--|-------------------------------------|--|--|
| 1. | IB00422230501482 | : | Date: 21.10.2022 | | | |
| 2. | Name of the Indenter / Consignee with address | : | The Superintending Engineer, KWA, PH Circle, Thrissur. | | | |
| 3. | Indenter Order No. & Date and Extension (if any) | : | W.O. No. KWA/PHC/TSR/D1/2771/2020 dated 30.12.2020 Letter No. KWA/HO/SP-440/2017/TPI(I) dated 02.07.2020 of the Managing Director, KWA, Jalabhavan, TVM. Letter dtd. 05.04.2021 of Sri. Muhammed Ali, Thadathil House, Kanayam Post, Shoranur. | | | |
| 4. | Details of the Consignee | : | The Executive Engineer, PH Division, KWA, Irinjalakuda. | | | |
| 5. | Name of the Supplier / Contractor | : | Sri. T. Muhammed Ali, Thadathil House, Kanayam P.O., Shoranur, Palakkad Dt 679122 | | | |
| 6. | Supplier Order No. & Date (if any) | : | TMALI/109/2020-21 dated 29.07.2022 (Amndmt. to 19.12.2020) | | | |
| 7. | Name and address of the Manufacturer / Inspection site | : | M/s Electrosteel Castings Limited, Rachagunneri Village, Srikalahasthi, Chittoor - 517641 Andhra Pradesh | | | |
| 8. | Manufacturer / Supplier Inspection Call Letter No. & Date | | 1. ECL-KL-323-10/22 dated 17.10.2022 2. KWA/PHC/TSR/D1/2771/2020-21 dated 16.04.2021 | | | |
| 9. | PDI Cell Assignment No. & Date | 1 | CIPET/HO/2022234340 dated 18.10.2022 | | | |
| 10. | Date of inspection | : | Initiated on: 21.10.2022 | Completed on: 21.10.2022 | | |
| 11. | Any other information | | JJM – Nattika Grama Panchayath - Providing FHTCs to Rural Households, Retrofitting and Augmentation of existing Water Supply Schemes. BIS License No: CM/L- 6245464 | | | |

DETAILS OF THE STORES

| SI. No. | Description of the items | Quantity as per order | Quantity inspected earlier (Cumulative) | Quantity offered for Inspection | Quantity Accepted | Quantity Rejected | Quantity Balance |
|------------|--------------------------|-----------------------|--|---|---|----------------------|---------------------|
| Ducti | le Iron spun Pipe | es with Socket & | Spigot ends suita | able for rubber gasket and external Zinc & B | push on jointing as per lituminous coating. | S 8329:2000 | with ISI |
| CCITI | lication wants w | tir internal com | The mortan Emmig | | | | |
| 1. | DN 250mm Class K9 | 1382 mtrs | Nil | 1380 mtrs | 1380 mtrs (230 Nos. X 6.0 mtrs) | Nil | 2 mtrs |
| | | ed items are star | | | | | |

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 No. IB00422230501482/1 dated 21.10.2022 is 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.

> AUTHORIZED SIGNATORY (R. Jeevan Ram, 980)

CC: 1. The Executive Engineer, PH Division, KWA, Irinjalakuda.

2. Sri. T. Muhammed Ali, Thadathil House, Kanayam P.O., Shoranur, Palakkad Dt. - 679122

3. M/s Electrosteel Castings Limited, Rachagunneri Village, Srikalahasthi, Chittoor - 517641 Andhra Pradesh

4. CIPET: IPT - Kochi

द्वीय पेट्रोरसायन अभियांत्रिकी एवं ब्राद्योगिकी संस्थान

(पूर्व में केन्द्रीय प्लास्टिक्स इंजीनियरिंग एवं तकनीकी संस्थान)

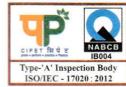
प्रधान कार्यालय, पी. डी. आई. सेल्

रसायन एवं पेट्रो रसायन विभाग

रसायन एवं उर्वरक मंत्रालय, भारत सरकार

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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)

Dated: 21.10.2022

E-mail: pdiho@cipet.gov.in

Name of the Inspecting Official: R. Jeevan Ram

W.O. Centre: Kochi Camp at: M/s Electrosteel Castings Limited, Rachagunneri, Srikalahasthi, Chittoor - 517641

INSPECTION DOCUMENT

Inspection Document No: IB00422230501482/1

Issued to: M/s Electrosteel Castings Limited, Rachagunneri Village, Srikalahasthi, Chittoor - 517641 Andhra Pradesh Manufacturer / Supplier Inspection Call Letter No. & Date: ECL-KL-323-10/22 dated 17.10.2022 & KWA/PHC/TSR/D1/2771/ 2020-21 dated 16.04.2021

Test Report as per IS 8329:2000 (Latest Amendment)

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.

250mm DN, Class K9

c) Declared Value, if any d) Quantity

: 1380 mtrs (230 Nos. X 6.0 mtrs)

e) Any Other Information

Batch No. 16J, 17J & 19J

PART - B: SUPPLIMENTARY INFORMATIONS

Reference to sampling procedure: IS 11606: 1986 (Random Sampling Method)

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

| SI, Clause No. | | Tests Witnessed | Unit | Specified Requirements | Observed Results |
|----------------|---------------------|---|--------------|---------------------------|---------------------|
| 1 | 13 | DIMENSIONS | | | |
| | 10.1.0.15.5 | Effective length (L) (Socket Ended Pipe) | mm | | |
| 1.1 | 13.1 & 15.5 | Minimum/Maximum | mm | 5900 / 6100 | 6001 / 6030 |
| 1.2 | 13.3 & 15.4 Table 2 | Min. Wall Thickness (e) | | 5.3 | 6.1 |
| 4.0 | 45 4 4 Table 7 | ' External Diameter (DE) | | | |
| 1.3 | 15.1.1 Table 7 | Minimum/ Maximum | mm | 270.9 / 275.0 | 271.3 / 274.7 |
| W W | 15.1.3 | Ovality | % | Within the DE Limit | Satisfactory |
| 1.4 | Table 8 & 15.3.2 | Tolerance on Ovality | mm | 1.0 | Not Applicable |
| 1.5 | 15.6 | Deviation from Straight Line (maximum) | | ≤ 1.25 x L | < 1.25 x L |
| | 16.2 | External Protection | | | |
| 1.6 | Annex. A & C | Zinc + Bituminous Coating Thickness (Min.) | μm | - | 86 |
| 1.0 | Annex. C 2.2 | Bituminous Coating-Minimum | μm | 50 | > 50 |
| | Annex. C 2.2 | Bituminous Coating-Mean | μm | 70 | > 70 |
| 1.7 | 16.2 & Annex. C-2.3 | Bituminous Coating shall be smooth & tenacious a exposed to a temp of 65°C but not so brittle at temp with a pen knife. | Satisfactory | | |
| | 16.3 | Internal Linings | | | |
| | Table 15 &B-5 | Cement Mortar Lining (Min.) | mm | 1.5 | 2.5 |
| 1.8 | B-5 | Chamfer Length of CML (Max.) | mm | 50 | < 50 |
| | Table 16 &B-7 | Minimum Bore of CML | mm | 237 | 239 |
| 2 ' | 10 | Mechanical Tests | | | |
| 2.1 | 10.1.1 | Minimum Tensile Strength | MPa | 420 | 475.69 |
| 2.2 | 10.1.1 | Minimum Elongation at Break | % | 10 | 14.80 |
| 2.3 | 10.2 | Brinell Hardness Test | НВ | 230 (Max.) | 180 |

Review of Documents (if any) Clause Certificate / Report Issued SI Test Parameters / No/QAP Review / Remarks Certificate / Reports No. & Date No. Documents by. SI. No. Declaration on "Works Certificate for DI Pipes" for Hydrostatic Test by M/s Reviewed and Hydrostatic pressure. 1. 11.1 5.0 MPa for 10 seconds Electrosteel Castings Ltd., Srikalahasthi Found Satisfactory Reviewed and "Zinc Coating Report" of M/s Electrosteel Castings Ltd., Srikalahasthi. 2 16.2 Zinc mass deposition Found Satisfactory Test Report No. issued by Rubber sealing ring manufacturer. Reviewed and Test Report: WRM/ECL-SP/TRG/22-23 Dt: 30.07.2022 by M/s Waheguru 3 8 Rubber Sealing Ring Found Satisfactory Rubber Manufacturing Co. (P) Ltd., Kolkata

PART - D: REMARKS

1. This Inspection document shall not be reproduced except in full without the written approval of the PDI Cell at CIPET Head Office, Chennai.

2. These witness results relate exclusively to the work ordered or the object (s) or the lot inspected.

3. Lab. Environmental Condition during the witness of tests: Temp. (°C): 24 ± 2.

4. Calibration status of equipment / Instruments are verified.

AUTHORIZED SIGNATORY (R. Jeevan Ram, 980)

केन्द्रीय पेट्रोरसायन अभियांत्रिकी एवं प्रौद्योगिकी संस्थान

(पूर्व में केन्द्रीय प्लास्टिक्स इंजीनियरिंग एवं तकनीकी संस्थान)

प्रधान कार्याल्य, पी. डी. आई. सेल्

रसायन एवं पेट्रो रसायन विभाग, रसायन एवं उर्वरक मंत्रालय, भारत सरकार

टी. वी. के. औद्योगिक इस्टेट, गिंडी, चेन्नई - 600 032

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

E-mail: pdiho@cipet.gov.in

Name of the Inspecting Official: R. Jeevan Ram

W.O. Centre: Kochi

Code No.: 980 Camp at: M/s Electrosteel Castings Limited, Rachagunneri, Srikalahasthi, Chittoor - 517641

| | INSPECTION REPORT | | | | | |
|-----|---|---|--|--------------------------|--|--|
| 1. | IB00422230501509 | : | Date: 21.10.2022 | | | |
| 2. | Name of the Indenter / Consignee with address | : | The Superintending Engineer, KWA, PH Circle, Thrissur. | | | |
| 3. | Indenter Order No. & Date and Extension (if any) | ; | W.O. No. KWA/PHC/TSR/D1/2771/2020 dated 30.12.2020 Letter No. KWA/HO/SP-440/2017/TPI(I) dated 02.07.2020 of the Managing Director, KWA, Jalabhavan, TVM. Letter dtd. 05.04.2021 of Sri. Muhammed Ali, Thadathil House, Kanayam Post, Shoranur. | | | |
| 4. | Details of the Consignee | : | The Executive Engineer, PH Division, KWA, Irinjalakuda. | | | |
| 5. | Name of the Supplier / Contractor | i | Sri. T. Muhammed Ali, Thadathil House, Kanayam P.O., Shoranur, Palakkad Dt 679122 | | | |
| 6. | Supplier Order No. & Date (if any) | : | TMALI/109/2020-21 dated 29.07.2022 (Amndmt. to 19.12.2020) | | | |
| 7. | Name and address of the Manufacturer / Inspection site | | M/s Electrosteel Castings Limited, Rachagunneri Village, Srikalahasthi, Chittoor - 517641 Andhra Pradesh | | | |
| 8. | Manufacturer / Supplier Inspection Call Letter No. & Date | ; | 1. ECL-KL-327-10/22 dated 18.10.2022 2. KWA/PHC/TSR/D1/2771/2020-21 dated 16.04.2021 | | | |
| 9. | PDI Cell Assignment No. & Date | : | CIPET/HO/2022234408 dated 20.10.2022 | | | |
| 10. | Date of inspection | : | Initiated on: 21.10.2022 | Completed on: 21.10.2022 | | |
| 11. | Any other information | : | JJM – Nattika Grama Panchayath - Providing FHTCs to Rural Households, Retrofitting and Augmentation of existing Water Supply Schemes. BIS License No: CM/L- 6245464 | | | |

DETAILS OF THE STORES Quantity Quantity Quantity Quantity offered SI. Description Quantity as inspected **Quantity Accepted** Balance earlier for Inspection Rejected of the items per order No. (Cumulative) Ductile Iron spun Pipes with Socket & Spigot ends suitable for rubber gasket push on jointing as per IS 8329:2000 with ISI Certification Marks with internal Cement Mortar Lining and external Zinc & Bituminous coating. 115 mtrs **DN 500mm** Nil (20 Nos. X 5.5 mtrs + Nil 115 mtrs Nil 115 mtrs Class K9 1 No. X 5.0 mtrs)

Remarks: All accepted items are stamped thus-

CIPET KOC - 980 22 / 05M

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 No. IB00422230501509/1 dated 21.10.2022 is 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.

AUTHORIZED SIGNATORY (R. Jeevan Ram, 980)

CC: 1. The Executive Engineer, PH Division, KWA, Irinjalakuda.

2. Sri. T. Muhammed Ali, Thadathil House, Kanayam P.O., Shoranur, Palakkad Dt. - 679122

3. M/s Electrosteel Castings Limited, Rachagunneri Village, Srikalahasthi, Chittoor - 517641 Andhra Pradesh

4. CIPET : IPT - Kochi

न्द्रीय पेट्रोरसायन अभियांत्रिकी एवं वौद्योगिकी संस्थान

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प्रधान कार्यालय. पी. डी. आई. सेल

रसायन एवं पेट्रो रसायन विभाग

रसायन एवं उर्वरक मंत्रालय, भारत सरकार

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W.O. Centre: Kochi

Name of the Inspecting Official: R. Jeevan Ram

Code No.: 980

Camp at: M/s Electrosteel Castings Limited, Rachagunneri, Srikalahasthi, Chittoor - 517641

INSPECTION DOCUMENT

Dated: 21.10.2022

Inspection Document No: IB00422230501509/1 Issued to: M/s Electrosteel Castings Limited, Rachagunneri Village, Srikalahasthi, Chittoor - 517641 Andhra Pradesh Manufacturer / Supplier Inspection Call Letter No. & Date: ECL-KL-327-10/22 dated 18.10.2022 & KWA/PHC/TSR/D1/2771/

2020-21 dated 16.04.2021

Test Report as per IS 8329:2000 (Latest Amendment)

PART - A: PARTICULARS OF STORES

a) Description of the items 500mm DN, Class K9

b) Grade/Variety/Type/Size/Class etc.

Nil

c) Declared Value, if any

115 mtrs (20 Nos. X 5.5 mtrs + 1 No. X 5.0 mtrs)

Batch No. 9J

d) Quantity e) Any Other Information

PART - B: SUPPLIMENTARY INFORMATIONS

Table 15 &B-5

B-5

Table 16 &B-7

10

10.1.1

10 2

Reference to sampling procedure: IS 11606: 1986 (Random Sampling Method) RESULTS OF WITNESSED TESTS & REVIEW OF DOCUMENTS Observed Specified PART - C Unit Results Tests Witnessed Requirements SI. Clause No. No DIMENSIONS 13 mm Effective length (L) (Socket Ended Pipe) 5502 / 5523 5400 / 5600 13 1 & 15.5 mm Minimum/Maximum 1.1 8.1 7.2 mm Min. Wall Thickness (e) 13.3 & 15.4 Table 2 1.2 External Diameter (DE) 528.7 / 531.8 528.2 / 533.0 mm 15.1.1 Table 7 Minimum/ Maximum 1.3 Satisfactory Within the DE Limit % Ovality 15.1.3 Not Applicable 1.75 mm 1.4 Tolerance on Ovality Table 8 & 15.3.2 < 1.25 X L ≤ 1.25 X L Deviation from Straight Line (maximum) mm 156 1.5 **External Protection** 16.2 85 Zinc + Bituminous Coating Thickness (Min.) μm Annex. A & C > 50 50 μm Bituminous Coating-Minimum 1.6 Annex. C 2.2 70 > 70 μm Bituminous Coating-Mean Bituminous Coating shall be smooth & tenacious and hard enough not to flow when Annex. C 2.2 exposed to a temp of 65°C but not so brittle at temp of 0°C as to chip off when scribed Satisfactory 16.2 & Annex. C-2.3 1.7 with a pen knife Internal Linings 16.3 4.0 3.0 mm Cement Mortar Lining (Min.)

| Revie | eview of Documents (if any) Clause Clause Certificate / Report Issued | | | | |
|------------|--|--------------------------------|--|--|-------------------------------|
| SI. No. | Clause No/QAP | Test Parameters / Documents | Certificate / Reports No. & Date by. | | Review / Remarks Reviewed and |
| | SI. No. | Documenta | nut I O Wearts for DI Pir | | |
| | 1000000000 | Hydrostatic pressure, | Declaration on "Works Certificate for DI Pipes" for Hydrostatic Test by M/s | | Found Satisfactory |
| 1. | 11.1 | 4.0 MPa for 10 seconds | Electrosteel Castings Ltd., Srikalahasthi. | The second secon | Reviewed and |
| | 94 (ACC 644) | - descrition | "Zinc Coating Report" of M/s Electrosteel C | Found Satisfactory | |
| 2. | 16.2 | Zinc mass deposition | Zinc Coaling Report of the English | | D. James and |
| 3. | 8 | Rubber Sealing Ring | Test Report No. issued by Rubber sealing 1. Test Report: WRM/ECL-SP/TRG/22-2: Rubber Manufacturing Co. (P) Ltd., Ko | Reviewed and Found Satisfactory | |

Chamfer Length of CML (Max.)

Minimum Bore of CML

Mechanical Tests

Minimum Tensile Strength

Minimum Elongation at Break

Brinell Hardness Test

PART - D: REMARKS

1.8

2.1

2.2

1. This Inspection document shall not be reproduced except in full without the written approval of the PDI Cell at CIPET Head Office, Chennai.

2. These witness results relate exclusively to the work ordered or the object (s) or the lot inspected.

3. Lab. Environmental Condition during the witness of tests: Temp. (°C): 24 ± 2.

4. Calibration status of equipment / Instruments are verified

AUTHORIZED\SIGNATORY (R. Jeevan Ram, 980)

< 50

488

481.57

15.32

171

50

485

420

230 (Max.

mm

MPa

HB