

सेन्ट्रल इंस्टीट्यूट ऑफ पेट्रोकेमिकल्स
इंजीनियरिंग एण्ड टेक्नोलॉजी
(पूर्व में सेन्ट्रल इंस्टीट्यूट ऑफ प्लास्टिक्स इंजीनियरिंग एण्ड टेक्नोलॉजी)
प्रधान कार्यालय. पी.डी. आई सेल्
रसायन एवं पेट्रो रसायन विभाग
रसायन एवं उर्वरक मंत्रालय, भारत सरकार
टी.वी.के. औद्योगिक इस्टेट, गिंडी, चेन्नई - 600 032.
दूरभाष : 044-29813708 (Direct) / 044-22254780 (Extn.-502)
ई-मेल : pdicpet@gmail.com



**CENTRAL INSTITUTE OF PETROCHEMICALS
ENGINEERING & TECHNOLOGY**
(Formerly Central Institute of Plastics Engineering & Technology)
Head Office, PDI Cell
Department of Chemicals & Petrochemicals
Ministry of Chemicals & Fertilizers, Govt. of India
TVX Industrial Estate, Guindy, Chennai - 600 032.
Phone : +044-29813708 (Direct) / 044-22254780 (Extn.-502)
Email : pdicpet@gmail.com



Name of the Inspecting Official: SHASHI KUMAR A.M
Code No. : 1565

CIPET / QF / 7741

W.O. Centre: Kochi

Camp at: M/s. Kunsons pipes Pvt. Ltd. Coimbatore

INSPECTION REPORT

1.	Ref. No : IB00422230502977	:	Date: 10.03.2023
2.	Name of the Indenter / Consignee with detailed address	:	The Executive Engineer, Kerala Water Authority, Office of the Executive Engineer, Project Division, Kattappana - 685515
3.	Indenter Order No. & Date and Extension	:	1. JJM - 1376 /2022 Dt.25.02.2023 2. Work Order dated 16.02.2023
4.	Details of the Consignee	:	The Executive Engineer, Kerala Water Authority, Office of the Executive Engineer, Project division, Kattappana - 685515 Jal Jeevan Mission- JJM - Providing FHTC to All Households in Erattayr and Kamakshi(part) panchayaths in Idukki District -providing and laying Distribution Network and FHTC for various Zones pipeline Works - Intimation for pipe testing -reg.
5.	Name of the Supplier / Contractor	:	Sri KO Jose Kelakath perumbavoor.
6.	Supplier Order No. & Date (if any)	:	--
7.	Name and address of the Manufacturer / Inspection site	:	M/s Kunsons Pipes Pvt Ltd, SF No.458/1,458/2,459/A, 459/2A, Velamadai,Coimbatore-641010
8.	Manufacturer / Supplier Inspection Call Letter No. & Date	:	Ref.No. KUN HDPE/019 & Date: 25/02/2023
9.	PDI Cell Assignment No. & Date	:	CIPET/HO/2022237748 Date: 01.03.2023
10.	Date of inspection	:	Initiated on: 06.03.2023 Completed on: 10.03.2023
11.	Any other information	:	Manufacturer BIS License No. CM/L- 6500061612 Validity: 24.08.2023

DETAILS OF THE STORES

Sl. No	Description of the items	Quantity as per order in meter	Quantity inspected earlier (Cumulative) in meter	Quantity offered for inspection in meter	Quantity Accepted in meter	Quantity Rejected in meter	Quantity Balance in meter
HDPE Pipes as per IS:4984:2016 with ISI certification mark							
1.	HDPE Pipes Dia. 90mm PE-100 PN- 8	3124	CIPET probe • perform • practice • Plastics	3124 (13 nos x 225 Mtrs + 1 nos. x 199Mtrs)	3124 (13 nos x 225 Mtrs + 1 nos. x 199Mtrs)	NIL	NIL
2.	HDPE Pipes Dia. 90mm PE-100 PN- 10	4756	NIL	4756(21nos x 225 Mtrs + 1nos x 31mtrs)	4756(21nos x 225 Mtrs + 1nos x 31mtrs)	NIL	NIL
3.	HDPE Pipes Dia.90mm PE-100 PN-16	3904	NIL	3904(17nos x225 Mtrs+1 nos x 79Mtrs)	3904(17nos x225 Mtrs+1 nos x 79Mtrs)	NIL	NIL

Remarks: All accepted items are stamped thus-



CIPET /PDI / 2022 2023

MDU / 082/1565

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 IB00422230502977/01-03 dated 10.03.2023 are enclosed.
2. This inspection report is valid for 30 days and any Dispute/discrepancies/claims may be brought to the notice of the undersigned within 30 days from the date of issue of this report.



Received/acceptance

AUTHORISED SIGNATORY
(SHASHI KUMAR A.M, code no.1565)

M/s. Kunsons pipes Pvt. Ltd. Coimbatore 2. Sri KO Jose- Contractor 3.EE, KWA 4. CIPET -Kochi

www.cipet.gov.in

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CIPET / QF / 7742

Name of the Inspecting Official: SHASHI KUMAR A.M
Code No. : 1565

W.O. Centre: Kochi
Camp at: M/s. Kunsons pipes Pvt. Ltd. Coimbatore

INSPECTION DOCUMENT

Issued to: The Superintending Engineer, Kerala Water Authority, Office of the Superintending Engineer, Project division Kattappana
Manufacturer / Supplier Inspection Call Letter Ref.No. : KUN HDPE/019 & Date: 25/02/2023
INSPECTION DOCUMENT AS PER IS NO. / QAP NO. : 4984:2016

Page No: 1 of 3
DATE: 10 03 2023

PART - A: PARTICULARS OF STORES

- | | |
|---------------------------------------|---|
| a) Description of the items | : HDPE pipe |
| b) Grade/Variety/Type/Size/Class etc. | : 90 MM DIAMETER PE100 PN8 HDPE PIPE |
| c) Declared Value, if any | : Density - 0.952 gm/cc, MFI - 0.27gm/10min |
| d) Quantity | : 3124 (13 nos x 225 Mtrs + 1 nos. x 199Mtrs) |
| e) Any Other Information | : Batch Numbers :202302150051 |

PART - B: SUPPLEMENTARY INFORMATION :

- a) Reference to sampling procedure : IS4984 : 2016 (Latest Amendment)

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

Sl. No	Clause No.	Tests Witnessed	Unit	Specified Requirements	Observed Results	
1	6.2	Colour of pipe	----	Black	Black	
2	6.2.1	Dimension of Blue Stripes				
		Width	mm	Min 3.0	3.10	
		Depth	mm	Max. 0.2	0.12	
3	7.1	Visual Appearance	----	The Internal & External surfaces shall be smooth, clean and free from grooving and other defects. Ends shall be cleanly cut and shall be square with the axis of the pipe	Satisfactory	
		Out of Squareness	mm	Max. 3.0	2.2	
		Length of straight pipe	Mtrs	--	--	
4	7.4	Dimensions of Pipe				
		7.4.1.1 Table-3	Outside Diameter			
			Minimum	mm	90.0	90.10
	Maximum	mm	90.6	90.55		
	7.4.1.1 Table-4	Wall Thickness				
		Minimum	mm	5.3	5.35	
	Maximum	mm	6.0	5.96		
7.4.1.2	Ovality	mm	Maximum 1.8	1.8		
5	8	Performance Requirement				
	8.1.1 Table-5	Hydraulic Characteristic (IPCR)		The sample shall show no signs of localized swelling, leakage or weeping and shall not burst during the Test Duration	Confirmed	
		Acceptance Test 48 hrs at 80°C @ 5.7 MPa Induced Stress				
	8.2	Longitudinal Reversion Test	%	Max ± 3 %	1.4	
	8.3	Carbon Black Content	%	2.5 ± 0.5	2.59	
		Carbon Black Dispersion	----	Satisfactory	Satisfactory	
	8.4	Melt Flow Rate	g/10min	0.2 to 1.1	0.21	
	8.5	Oxidation Induction Time	min	Min20	27.23	
8.7	Base Density at 27°C	Kg/m ³	930 to 960	0.957		
8.9	Elongation at Break	%	≥ 350	599.63		
6	10	Marking on Pipe	----	Kunsons Pipes Pvt Ltd HDPE PIPE PE100 PN8 DN90 SDR17 IS 4984-2016 CML/6500061612, B. NO. 202302150051	Marking are as per Standard	

Review of Documents (if any)

Sl. No.	Clause No.	Tests Parameters/ Documents	Certificate/ Report No. & Date	Report Issued by	Review/ Remarks
1.	5.2, 6.1.1	Raw material property Lot No. 221140725 Grade: OPALene HM "P50H03"	Report No. OPALeneHMP50H03 Dt. 20.12.2022	ONGC Petro additions ltd	Reviewed & Confirmed
2.	Table-2	Master batch report Lot No. 23D22005, Grade: BLENDSPLDELUXE BLACKPC/13D	Report No. M/697 Dt. 09.07.2022	Blend Colours pvt ltd	
3.	8.1.1 Annex E	Internal Pressure Creep Rupture Test of Pipe (at 27°C for 100 h)	Report No.:22339 Date: 26.07.2022	CIPET-Kochi	Reviewed & Confirmed
4.	-do-	Internal Pressure Creep Rupture Test of Pipe (at 80°C for 165 h)			
5.	-do-	Internal Pressure Creep Rupture Test of Pipe (at 80°C for 1000 h)			
6.	8.6	Overall Migration			

PART - D: REMARKS

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- 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: Temperature 27± 2 °C & Relative Humidity 65±5%. Calibration Status of equipments / Instruments are verified.

**AUTHORISED SIGNATORY
(SHASHI KUMAR A.M, code no.1565)**

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CIPET / QF / 7742

Name of the Inspecting Official: SHASHI KUMAR A.M
Code No. : 1565

W.O. Centre: Kochi
Camp at: M/s. Kunsons pipes Pvt. Ltd. Colmbatore

INSPECTION DOCUMENT

Issued to: The Executive Engineer, Kerala Water Authority, Office of the Executive Engineer, Project division Kattappana
Manufacturer / Supplier Inspection Call Letter Ref.No. : KUN HDPE/019 & Date: 25/02/2023
INSPECTION DOCUMENT AS PER IS NO. / QAP NO. : 4984:2016

Page No. : 2 of 3
DATE: 10.03.2023

PART - A: PARTICULARS OF STORES

- | | |
|---------------------------------------|--|
| a) Description of the items | : HDPE pipe |
| b) Grade/Variety/Type/Size/Class etc. | : 90 MM DIAMETER PE100 PN10 HDPE PIPE |
| c) Declared Value, if any | : Density - 0.952gm/cc, MFI - 0.27gm/10min |
| d) Quantity | : 4756 (21 nos x 225 Mtrs + 1 nos. x 31Mtrs) |
| e) Any Other Information | : Batch Numbers :202303010051 |

PART - B: SUPPLEMENTARY INFORMATION :

- b) Reference to sampling procedure : IS4984 : 2016 (Latest Amendment)

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

Sl. No	Clause No.	Tests Witnessed	Unit	Specified Requirements	Observed Results	
1	6.2	Colour of pipe	----	Black	Black	
2	6.2.1	Dimension of Blue Stripes				
		Width	Mm	Min. 3.0	3.15	
		Depth	Mm	Max. 0.2	0.12	
3	7.1	Visual Appearance	----	The Internal & External surfaces shall be smooth, clean and free from grooving and other defects. Ends shall be cleanly cut and shall be square with the axis of the pipe	Satisfactory	
		Out of Squareness	Mm	Max. 3.0	2.6	
		Length of straight pipe	Mtrs	--	--	
4	7.4	Dimensions of Pipe				
		7.4.1.1 Table-3	Outside Diameter			
			Minimum	Mm	90.0	90.10
		Maximum	Mm	90.6	90.50	
	7.4.1.1 Table-4	Wall Thickness				
		Minimum	Mm	6.7	6.71	
		Maximum	Mm	7.5	7.48	
7.4.1.2	Ovality	Mm	Maximum 1.8	1.8		
5	8	Performance Requirement				
	8.1.1 Table-5	Hydraulic Characteristic (IPCR)		The sample shall show no signs of localized swelling, leakage or weeping and shall not burst during the Test Duration	Confirmed	
		Acceptance Test 48 hrs at 80°C @ 5.7 MPa				
	8.2	Longitudinal Reversion Test	%	Max ± 3 %	1.4	
	8.3	Carbon Black Content	%	2.5 ± 0.5	2.30	
		Carbon Black Dispersion	----	Satisfactory	Satisfactory	
	8.4	Melt Flow Rate	g/10min	0.2 to 1.1	0.23	
	8.5	Oxidation Induction Time	Min	Min20	24.16	
8.7	Base Density at 27°C	Kg/m ³	930 to 960	0.959		
8.9	Elongation at Break	%	≥ 350	599.63		
6	10	Marking on Pipe	----	Kunsons Pipes Pvt Ltd HDPE PIPE PE100 PN10 DN90 SDR13.6 IS 4984-2016 CML 6500061612, B. NO. 202303010051	Marking are as per Standard	

Review of Documents (if any)

Sl. No.	Clause No.	Tests Parameters/ Documents	Certificate/ Report No. & Date	Report Issued by	Review/ Remarks
1.	5.2, 6.1.1	Raw material property Lot No. 221140725 Grade: OPALene HM "P50H03"	Report No. OPaLeneHMP50H03 Dt. 20.12.2022	ONGC Petro additions ltd	Reviewed & Confirmed
2.	Table-2	Master batch report Lot No. 23D22005, Grade: BLENDSPLDELUXE BLACKPC/13D	Report No. M/697 Dt. 09.07.2022	Blend Colours pvt ltd	
3.	8.1.1 Annex E	Internal Pressure Creep Rupture Test of Pipe (at 27°C for 100 h)	Report No.:22339 Date: 26.07.2022	CIPET=Kochi	Reviewed & Confirmed
4.	-do-	Internal Pressure Creep Rupture Test of Pipe (at 80°C for 165 h)			
5.	-do-	Internal Pressure Creep Rupture Test of Pipe (at 80°C for 1000 h)			
6.	8.6	Overall Migration			

PART - D: REMARKS

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Calibration Status of equipments / Instruments are verified.

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INSPECTION DOCUMENT

Issued to: The Executive Engineer, Kerala Water Authority, Office of the Executive Engineer, Project division Kattappana
Manufacturer / Supplier Inspection Call Letter Ref No. : KUN HDPE/010 & Date: 25/02/2023
INSPECTION DOCUMENT AS PER IS NO. / QAP NO. : 4984 2016
DOC. NO. : IB00422230502977/03

Page No. 3 of 3
DATE: 10 03 2023

PART - A: PARTICULARS OF STORES

- | | |
|---------------------------------------|--|
| a) Description of the items | : HDPE pipe |
| b) Grade/Variety/Type/Size/Class etc. | : 90 MM DIAMETER PE100 PN16 HDPE PIPE |
| c) Declared Value, if any | : Density - 0.952 gm/cc, MFI - 0.27gm/10min |
| d) Quantity | : 3904 (17 nos x 225 Mtrs + 1 nos. x 79Mtrs) |
| e) Any Other Information | : Batch Numbers :202302220051 |

PART - B: SUPPLEMENTARY INFORMATION :

- c) Reference to sampling procedure : IS4984 : 2016 (Latest Amendment)

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

Sl. No	Clause No.	Tests Witnessed	Unit	Specified Requirements	Observed Results	
1	6.2	Colour of pipe	----	Black	Black	
2	6.2.1	Dimension of Blue Stripes				
		Width	Mm	Min. 3.0	3.15	
		Depth	Mm	Max. 0.2	0.12	
3	7.1	Visual Appearance	----	The Internal & External surfaces shall be smooth, clean and free from grooving and other defects. Ends shall be cleanly cut and shall be square with the axis of the pipe	Satisfactory	
		Out of Squareness	Mm	Max. 3.0	2.2	
		7.2	Length of straight pipe	Mtrs	--	--
4	7.4	Dimensions of Pipe				
		7.4.1.1 Table-3	Outside Diameter			
			Minimum	mm	90.0	90.10
		Maximum	mm	90.6	90.50	
	7.4.1.1 Table-4	Wall Thickness				
		Minimum	mm	10.0	10.15	
		Maximum	mm	11.10	11.10	
7.4.1.2	Ovality	mm	Maximum 1.8	1.4		
5	8	Performance Requirement				
	8.1.1 Table-5	Hydraulic Characteristic (IPCR)	----	The sample shall show no signs of localized swelling, leakage or weeping and shall not burst during the Test Duration	Confirmed	
		Acceptance Test 48 hrs at 80°C @ 5.7 MPa Induced Stress				
	8.2	Longitudinal Reversion Test	%	Max ± 3 %	1.1	
	8.3	Carbon Black Content	%	2.5 ± 0.5	2.37	
		Carbon Black Dispersion	----	Satisfactory	Satisfactory	
	8.4	Melt Flow Rate	g/10min	0.2 to 1.1	0.26	
	8.5	Oxidation Induction Time	min	Min20	27.23	
8.7	Base Density at 27°C	Kg/m ³	930 to 960	0.960		
8.9	Elongation at Break	%	≥ 350	485.21 mm		
6	10	Marking on Pipe	----	Kunsons Pipes Pvt Ltd HDPE PIPE PE100 PN16 DN90 SDR9 IS 4984-2016 CML/6500061612, B. NO. 202302220051	Marking are as per Standard	

Review of Documents (if any)

Sl. No.	Clause No.	Tests Parameters/ Documents	Certificate/ Report No. & Date	Report Issued by	Review/ Remarks
1.	5.2, 6.1.1	Raw material property Lot No. 220640384 Grade: OPA Lene HM "P50H03"	Report No. OPA Lene IMP50H03 Dt. 28.06.2022	ONGC Petro additions ltd	Reviewed & Confirmed
2.	Table-2	Master batch report Lot No. 23D22005, Grade: BLENDSPL DELUXE BLACK PC/13D	Report No. M/697 Dt. 09.07.2022	Blend Colours pvt ltd	
3.	8.1.1 Annex E	Internal Pressure Creep Rupture Test of Pipe (at 27°C for 100 h)	Report No.:22337 Date: 26.07.2022	CIPET-Kochi	Reviewed & Confirmed
4.	-do-	Internal Pressure Creep Rupture Test of Pipe (at 80°C for 165 h)			
5.	-do-	Internal Pressure Creep Rupture Test of Pipe (at 80°C for 1000 h)			
6.	8.6	Overall Migration			

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