RAREAN
Fluid-Tech

We follow whatever flows-

WATER, GAS, OIL AND SEWERAGE

www.rareanfluidtech.com

RAREAN Fluid-Tech

INVA by RAREAN

CONTACT US

REGISTERED OFFICE-

605, ‘A’ Wing, Marathon Futurex, Lower Parel (E), Mumbai, Maharashtra - 400013.

CORPORATE OFFICE-

417, 4th Floor, Esplanade Mall -1, Rasulgarh, Bhubaneshwar - 751010

WORKS-

Plot No. 26/2, 33 to 37, 43 (P), 44 & 45, Jaymangal Industrial Estate, Khordha, Odisha

ASSOCIATED OFFICES

DUBAI, UAE -

TERAS Technology and Products DMCC, P.O. Box: 338390, Fortune Executive Tower, Cluster 'T', Office: 603, (Opposite to Pullman Hotel)Jumeirah Lake Towers Dubai, UAE

ABU DHABI, UAE -

1020, Zayed The First St, Al Danah, P.O. Box – 52880, Abu Dhabi 22220, UAE

hello@rareanfluidtech.com

www.rareanfluidtech.com

RAREAN Fluid-Tech

Always caring about "Life" - Life of our fellow beings and Life of Pipelines

GUIDED BY THE PHILOSOPHY OF

OUR MENTORS

BRAJA MISHRA

CHAIRMAN

He was recognised more than once as **one of the best CEOs** in the country during his 35 years of experience in the oil, gas, and water pipe industries. Throughout his career, he has built a strong track record of success in **establishing global recognition for world-class manufacturing companies** such as Welspun Corp and Maharashtra Seamless Ltd. Recognised by the leading business magazine **"Business World" as the "No. 1 Most Valuable CEO" for the year 2008** in the Materials sector and **"No.5 Most Valuable CEO"** in the All Industry Basis. he was again recognised in 2009 as **"No.6 as Most Valuable CEO"** in all India basis.

He is an **entrepreneur and turnaround professional, serving as Chairman of Rarean Fluid-Tech, Teras Piping Solutions, Teras Technology and Products DMCC, and UMSL.** Additionally, he is **vice chairman at Jindal Tubular USA LLC** in Mississippi, USA.

RAREAN Fluid-Tech

GUIDED BY THE PHILOSOPHY OF

OUR MENTORS

PARAMITA PANDA

VICE - CHAIRPERSON

She **serves as the Vice-Chairperson of REAN Fluid - Tech** , a startup manufacturer of HDPE pipes, and UMSL. She has also played a **vital role in developing UMSL's formidable team, business, and strategy** with over **30 years of professional experience.**

Her accomplishments include **a gold medal in the Post Graduate Program in Personnel Management and Industrial Relations** from Utkal University, and providing entrepreneurial leadership that consistently drives the company's growth. Additionally , **she had served as a Director on the Board of Indian Metals and Ferro Alloys Ltd.** and is an **active participant in community causes** through the Indian Metals Public Charitable Trust and the Ila Panda Centre for Arts.

RAREAN Fluid-Tech

FROM CEO'S DESK

ANIRUDDHA MISHRA

FOUNDER, CEO & DIRECTOR

He is a graduate of Lynn University in the USA, with majors in International Business and Marketing. He has gained valuable professional experience in both the manufacturing and trading sectors.

During his internship at Jindal Tubular USA LLC, he gained experience in manufacturing, while at FerroTech and Teras companies, he gained experience in the trading sector. His entrepreneurial vision has led him to establish RAREAN Fluid-Tech, a world-class manufacturing unit in his home state of Odisha. With this venture, he aims to make Odisha an export hub for HDPE Pipes.

" With unstinted support from the industry-friendly state government, we are committed to not just becoming the largest and the best HDPE pipe manufacturer in the country but also making Odisha a global HDPE pipe manufacturing hub. We are right on track."

RAREAN Fluid-Tech

FROM COO'S DESK

MUKESH AGARWAL

DIRECTOR & COO

He is a Chartered Accountant, who brings over 22 years of professional and hands on expertise in operational excellence, investment evaluations/ joint ventures/ project evaluations/ business planning & analysis, budgeting, working capital management, & controllership, stakeholder management and reporting. He has an excellent track record to effectively lead cross-functional teams, set up processes and deliver projects on time and within budget.

"At Rarean, our primary focus is to offer the best quality pipes using, fit-for-purpose raw material to our customers. Our sustainable products are a preferred choice for various user industries. Quality is our USP."

RAREAN Fluid-Tech

OUR VALUES

CURIOSITY

We are curious people who always want to see the other side of the mountain no matter how hard it is to climb up

INNOVATIVENESS

Driven by a constant endeavor to discover the next, we challenge our thinking and look for improvement.

COMPASSION

Not just profit; we are driven by the purpose of making life better for all.

PASSION

Be determined, preserve pure and unadulterated bull headedness. Passion fuels confidence, creates excitement, and is contagious.

INTEGRITY

Never compromise on conscience, no matter what the circumstances are. Choosing what is right over what is easy.

FEARLESSNESS

Our culture of fearlessness empowers people to take decisions, experiment, and challenge the status quo

RAREAN
Fluid-Tech

ABOUT RAREAN

We are a polymer pipe manufacturer where innovation meets reliability. It's set up with an ideology of providing the **Best Quality Pipe and Fittings by using 100% fit-for-purpose pipe resins**. We have a state-of-the-art plant which is located at the Jaymangala industrial area at Khordha, Odisha, India to **produce about 20,000 MTPA of PE pipe** and are planning to establish 10,000 MT of PVC* (UPVC, CPVC, OPVC) for applications like water supply, sewerage, gas distribution, mining, and irrigation. Our extensive range of high-quality PE pipes offers durability, flexibility, and efficiency, ensuring to meet all national and international standards.

Perusing steadfast **commitment of, valuing human life and life of the pipeline**, we pride ourselves on being at the forefront of the industry, **providing cutting-edge solutions** to meet the evolving needs of our customers. Backed by years of expertise of a **highly skilled professional team** that looks after the pre and post-production inspection in the plant and a passion for innovation, we strive to deliver unparalleled products and service.

The mentor of the company is a world-renowned Pipe Industry Professional **Mr Braja Mishra**. His professional career took him to a large **part of the globe in the Oil & Gas & Water Pipeline Industry** during his stints in leadership positions in various corporates like Welspun Corp, Jindal Tubular USA LLC, Triveni Oil Field, Maharashtra Seamless etc .

RAREAN
Fluid-Tech

Quality Policy & It's
IMPLENTATION

Timely manufacturing and supplying high quality products that meet customer requirements

Maintains strict quality assurance plan from raw materials to finished products.

In-house Lab equipped with the latest equipment and manned by highly qualified & technical staff.

**Our lab is soon going to be accredited by NABL*

Certified by LRQA for Integrated Management Systems, and our pipes are WRAS-approved by NFS for potable water supply up to 65°C.

Technological
USP

Large processing window. Designed for high output

Swarfless cutting ensures pipes have clean, ready-to-joint ends

Internal pipe cooling system reduction of sagging/ovality of the finished goods.

All production lines are provided with Alternate Power supply system like UPS

Our QC Laboratory is fully equipped with all mandatory technology

Automated raw material blending processes results in pipes with fewer defects.

The INOEX automatic gravimetric RM feeding system for high dimension accuracy

Reduced carbon footprint, due to highly efficient machines, the power consumption is less.

RAW MATERIAL TESTING

1. Carbon Black Content & Dispersion Test
2. Density Test
3. Melt Flow Rate Test
4. Oxidation Induction Time Test (OIT)
5. Volatile Matter
6. Ash Content
7. Moisture Content
8. Pigment Dispersion

INVA by RAREAN

RAREAN Fluid-Tech

PIPE TESTING

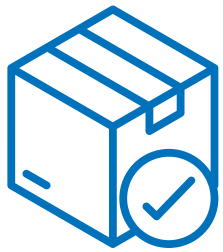
1. Dimension, lenght, colour, stripe & visual appearance test
2. Density
3. MFI
4. OIT
5. Yield strength
6. Elongation
7. CBC & CBD
8. Reversion test
9. Pigment dispersion
10. Hydrostatic pressure
11. Notch pipe pressure test
12. Squeeze off test
13. Slow crack growth
14. Resistance of weathering
15. Overall migration

INVA by RAREAN

RAREAN Fluid-Tech

PROCESS F

Raw material Received



Batch testing of raw material

Raw material approval

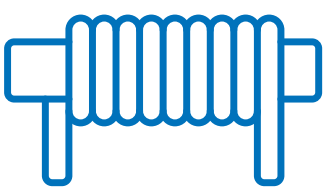
Dispatched

Dispatched certification

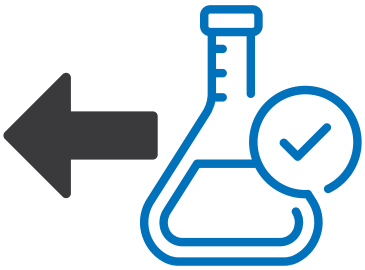
Thrid party final approval

Finished goods yard

Concurrent quality check



Coiling (if required)

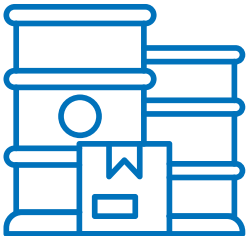


Periodic sample drawn and tested

RAREAN Fluid-Tech

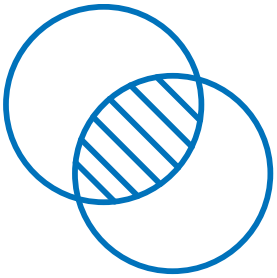
FLOW CHART

Unload rawmaterial



Raw material storage

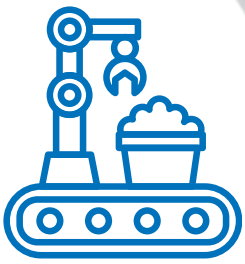
Approval of compound combination (if applicable)



Blending (if required)

Extrusion

First pipe approval



Mass Production

Online Inspection

CERTIFICATES

LRQA

Current issue date: 2 August 2024
Expiry date: 1 August 2027
Certificate identity number: 10625108

Original approval(s):
ISO 9001 - 2 August 2024
ISO 14001 - 2 August 2024
ISO 45001 - 2 August 2024

Certificate of Approval

This is to certify that the Management System of:

Rarean Fluid-Tech Private Limited

IDCO Plot No 26/2, 33, 34, 35, 36 & 37, Jaymangal Industrial Estate, P.O Jaymangal, Sarua. P.S / Tahasil, Khordha, 751019, Orissa, India

has been approved by LRQA to the following standards:

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

Approval number(s): ISO 9001 – 00045759, ISO 14001 – 00045757, ISO 45001 – 00045758

The scope of this approval is applicable to:

Manufacturing and despatch of polyethylene(pe) pipes and fittings for industrial, domestic, agriculture, sewage application.

Luis Cunha

Area Operations Manager - North Asia & SAMEA

Issued by: LRQA Limited

UKAS

Page 1 of 1

Report N°: R24072000F7

SGS

Page N°: 1/ 1

REPORT OF FINDING

File No. : Order No. 500017803 Date : 20.07.2024
Inspection Report No.: KOL/DSD/24-25/RFTPL/V01 Dated :11.07.2024
Ref. No. : 500017803-01

Buyer's Name and Address.: N/A
Manufacturer / Seller: **M/S RAREAN FLUID-TECH PVT LTD**
Plant Address: Plot No.26/2,33 to 37,43(P),44 & 45,Jaymangal Industrial -Estate,Khordha,Odisha,752055
Registered office:505,'A'Wing,Marathon Futurex,Lower Parel (E),Mumbai,Maharashtra-400013
Corporate Office:4th Floor,Esplanade Mall-1,Rasulgarh,Bhubaneswar-751010
Basis of Inspection Document No.: Vide Mail Received from manufacturer: **M/S RAREAN FLUID-TECH PVT LTD** dated 28.06.2024 & purchase order No & Date:POWO/24-25/00094 Dated:28.06.2024
Description of the Material: 20 mm to 500 mm PE (HDPE & MDPE Pipes)
Place and Date of Inspection:
11.07.2024 on Manufacturing Unit works at M/S RAREAN FLUID-TECH PVT LTD,26/2,33 to 37,43(P),44 & 45,Jaymangal Industrial -Estate,Khordha,Odisha,752055
Scope of Inspection and Sampling: Factory Audit for Capacity Assessment.
Findings: Based on the Factory Assessment / Audit carried out during the visit to the Manufacturing unit of **M/S RAREAN FLUID-TECH PVT LTD,26/2,33 to 37,43(P),44 & 45,Jaymangal Industrial -Estate,Khordha,Odisha,752055** and verification / review of relevant documents (Factory Licence,certificate of state pollution control board ,Last year turn over detail ,organization chart with Manpower details,ISO 9001:2015, ISO 14001 & ISO 45001 certificate ,IS 4984:2016,IS14885:2022 & IS14333:2022 BIS Licence, WRAS , Plant & Machinery details with output ,testing equipment details with calibration certificates ,raw material details with RMTC , major client details,GST ,MSME Certificate,Pan card,current work order,performance certificate,raw material details,Trade license,Export license & m/c output declaration etc)
,it is found that the said manufacturing unit is equipped with requisite Plant & Machineries and they have in-house well equipped Laboratory with Physical/Mechanical & Chemical Testing facilities.
The said Manufacturing unit is Possessing ISO 9001:2015,ISO 14001 & ISO 45001 certified Company and NOC certified by State Pollution Control Board, Odisha.
The Manufacturing units have Manufactured 20 mm to 500 mm PE (HDPE & MDPE)Pipes.
The installed Manufacturing capacity of aforesaid Manufacturing Unit is 20497 MT Per Annum (Three Shifts respectively)
Comments / Assessment: Based on the Factory Assessment / Audit, it is found that the installed Manufacturing capacity of aforesaid Manufacturing Unit is 20497 MT per annum (Three Shifts respectively) of 20 mm to 500 mm PE (HDPE & MDPE)Pipes (Specification: IS 4984:2016, IS 14885:2022,IS14333:2022, ISO 4427:2019 & ISO 4437:2014) .
This inspection has been carried out to the best of our knowledge & our responsibility is limited to the exercise of reasonable care. This Report of Findings reflects our findings at the time & place of inspection and is not intended to relieve the seller from their contractual obligations.

SGS

SGS India Private Ltd
Ecospace, Block – 3 A, 2nd Floor, East Wing, Premises IIF/11, Action Area – II, Rajarhat, New Town,
Kolkata - 700 156
Phone: +91 33 665 06 100 - 101 (B)
Fax: +91 33 232 40 745

Approval Number: 2312547 31st January 2024

WRAS APPROVED MATERIAL
UKAS PRODUCT CERTIFICATION 28741

Approval Number 2312547
Test Report: J-00468525

Water Regulations Approval Scheme Ltd.
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Crumlin,
Gwent,
NP11 4EG

31st January 2024

Rarean Fluid Tech Pvt. Ltd.
Plot-26/2,
33-37 Idco,
I.E Jayamangal,
Khordha,
OR 752055,
India

WATER REGULATIONS APPROVAL SCHEME LTD. (WRAS)
MATERIAL APPROVAL

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

POLYETHYLENE- COMPONENTS. **5240**

'INVA by Rarean'. Black coloured (with blue external stripe), extruded PE pipe. For use with water up to 65°C.

APPROVAL NUMBER: 2312547
APPROVAL HOLDER: RAREAN FLUID TECH PVT. LTD.

The Scheme reserves the right to review approval.
Approval 2312547 is valid between December 2023 and December 2028
An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, "Materials which have passed full tests of effect on water quality".
The Directory may be found at: www.wrasapprovals.co.uk/approvals-directory/

Yours Faithfully

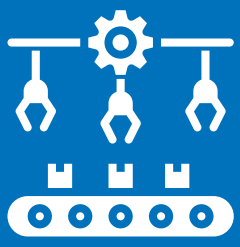
Ian Hughes
WRAS Approvals Manager

by RAREAN

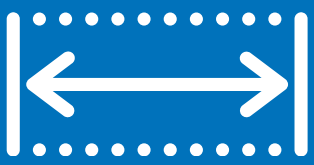
OUR BRAND

In Sanskrit, it means pervading or spreading throughout. Rarean Fluid - Tech working its way into spreading its presence globally similar to INVA. INVA guarantees superior performance to provide high cost-benefit to ensure that customers' long-term goals are addressed.

No wonder that INVA products are already gaining recognition and are quickly spreading their wings to a broader market.



State of the art of manufacturing



Wide product range

Highest Dimensional Accuracy

Conscientious Product Quality

APPLICATIONS

SEWERAGE

GAS DISTRIBUTION

WATER SUPPLY

IRRIGATION

MINING

INVA by RAREAN

RAREAN Fluid-Tech

INVA

by RAREAN

Our Associate Companies

Our associate companies have a diversified portfolio of Manufacturing, EPC business, Trading, Consultancy and Strategic Investment.

www.umsl.in

UMSL, Limited - EPC Contracting firm based out of Odisha. Since its major entry into the infrastructure sector in 2012 UMSL has grown to over 500 employees by 2023, successfully executing projects across Odisha, Jharkhand, Chhattisgarh, and Maharashtra

FERROTECH

www.ferrotech.org

FerroTech India Pvt Ltd – is based out of Mumbai and is engaged in supplying ferroalloys to the Indian steel industry.

Ferrotech- FZE, UAE – 30% strategic shareholder in Jindal Tubular USA LLC, USA (JTUL). JTUL is a Large Diameter Steel Pipe Manufacturer based out of Mississippi, USA. It is preferred API steel pipe supplier to all major Oil and Gas Companies in North America like Kinder Morgan, Enterprise Products, Enbridge, Phillips 66 etc.

TERAS

www.theteras.com

Teras Technology and Products DMCC, UAE - Supplies API Steel Plates & Coils to various Pipe Mills in the Middle East. It has executed orders of over 200,000 MT API Steel. It has service Agreements with reputed pipe mills.

TERAS
PIPING SOLUTIONS

www.teraspiping.com

Teras Piping Solutions LLC, UAE – Registered with Abu Dhabi National Oil Company (ADNOC). It specializes in supplies of piping products like welded and seamless pipes, fittings, flanges, etc.

PE PIPE FOR CONVEYANCE OF

GAS

RAREAN
Fluid-Tech

Size
20mm - 315mm
(1/2" - 12")

Grade
PE100 (PE 4710),
PE80 (PE 3408)

SDR Rating
DR - 17

Specification
IS: 14885, ISO: 4437
ASTM F 2619, EN 1555

COLOURS :

www.rareanfluidtech.com

PE PIPE FOR GAS AS PER

IS: 14885

Nominal outside diameter, mm	Minimum wall thickness (emin) mm			
Diameter	SDR 17.6	SDR 13.6	SDR 11	SDR 9
16	2.3	2.3	3	3
20	2.3	2.3	3	3
25	2.3	2.3	3	3
32	2.3	2.3	3	3.6
40	2.3	3	3.7	4.5
50	2.9	3.7	4.6	5.6
63	3.6	4.7	5.8	7.1
75	4.3	5.5	6.8	8.4
90	5.2	6.6	8.2	10.1
110	6.3	8.1	10	12.3
125	7.1	9.2	11.4	14
140	8	10.3	12.7	15.7
160	9.1	11.8	14.6	17.9
180	10.3	13.3	16.4	20.1
200	11.4	14.7	18.2	22.4
225	12.8	16.6	20.5	25.1
250	14.2	18.4	22.7	27.9
280	16	20.6	25.4	31.3
315	17.9	23.2	28.6	35.2
355	20.2	26.1	32.3	39.7
400	22.8	29.4	36.4	44.7
450	25.6	33.1	41	50.3
500	28.5	36.8	45.5	55.8

INA by RAREAN

RAREAN Fluid-Tech

PE PIPE FOR GAS AS PER

ASTM F 2619

Nominal IPS pipe size	DR	Wall thickness & tolerance			
		Minimum wall thickness		Tolerance	
		In.	Mm	In.	Mm
1/2	13.5	0.062	1.58	0.007	0.18
	11	0.076	1.93	0.009	0.22
	9	0.093	2.36	0.011	0.28
	7.3	0.115	2.92	0.014	0.36
	7	0.12	3.05	0.014	0.36
3/4	13.5	0.078	1.98	0.009	0.22
	11	0.095	2.41	0.011	0.28
	9	0.117	2.97	0.014	0.36
	7.3	0.144	3.66	0.017	0.43
	7	0.15	3.81	0.018	0.46
1	13.5	0.097	2.46	0.012	0.3
	11	0.12	3.05	0.014	0.36
	9	0.146	3.71	0.018	0.46
	7.3	0.18	4.57	0.022	0.56
	7	0.188	4.78	0.023	0.58
1 1/4	13.5	0.123	3.12	0.015	0.38
	11	0.151	3.84	0.018	0.46
	9	0.184	4.67	0.022	0.56
	7.3	0.227	5.77	0.027	0.69
	7	0.237	6.02	0.028	0.71
1 1/2	13.5	0.141	3.58	0.017	0.43
	11	0.173	4.39	0.021	0.53
	9	0.211	5.36	0.025	0.64
	7.3	0.26	6.6	0.031	0.79
	7	0.271	6.88	0.033	0.84
2	17	0.14	3.56	0.017	0.43
	13.5	0.176	4.47	0.021	0.51
	11	0.216	5.49	0.026	0.66
	9	0.264	6.71	0.032	0.81
	7.3	0.325	8.26	0.039	0.99
	7	0.339	8.61	0.041	1.04
2 1/2	21	0.137	3.48	0.016	0.41
	17	0.169	4.29	0.02	0.51
	13.5	0.213	5.41	0.026	0.66
	11	0.261	6.63	0.031	0.79
	9	0.319	8.1	0.038	0.97
	7.3	0.394	10	0.047	1.2
	7	0.411	10.43	0.049	1.25
3	21	0.167	4.24	0.02	0.51
	17	0.206	5.23	0.025	0.64
	13.5	0.259	6.58	0.031	0.79
	11	0.318	8.08	0.038	0.97
	9	0.389	9.88	0.047	1.19
	7.3	0.479	12.17	0.058	1.47
	7	0.5	12.7	0.06	1.52

Nominal IPS pipe size	DR	Wall thickness & tolerance			
		Minimum wall thickness		Tolerance	
		In.	Mm	In.	Mm
4	32.5	0.138	3.51	0.017	0.43
	26	0.173	4.39	0.021	0.53
	21	0.214	5.44	0.026	0.66
	17	0.265	6.73	0.032	0.81
	13.5	0.333	8.46	0.04	1.02
	11	0.409	10.39	0.049	1.24
	9	0.5	12.7	0.06	1.52
	7.3	0.616	15.65	0.074	1.88
	7	0.643	16.33	0.077	1.96
5	32.5	0.171	4.35	0.021	0.52
	26	0.214	5.43	0.027	0.65
	21	0.265	6.73	0.032	0.81
	17	0.327	8.31	0.039	1
	13.5	0.412	10.47	0.049	1.26
	11	0.506	12.85	0.061	1.54
	9	0.618	15.7	0.074	1.88
	7.3	0.762	19.36	0.091	2.32
	7	0.795	20.19	0.095	2.42
6	32.5	0.204	5.18	0.024	0.61
	26	0.255	6.48	0.031	0.79
	21	0.315	8	0.038	0.97
	17	0.39	9.91	0.047	1.19
	13.5	0.491	12.47	0.059	1.5
	11	0.602	15.29	0.074	1.83
	9	0.736	18.69	0.088	2.24
	7.3	0.908	23.06	0.109	2.77
	7	0.946	24.03	0.114	2.9
8	32.5	0.265	6.73	0.032	0.81
	26	0.332	8.43	0.04	1.02
	21	0.411	10.44	0.049	1.24
	17	0.507	12.88	0.061	1.55
	13.5	0.639	16.23	0.077	1.96
	11	0.784	19.91	0.094	2.39
	9	0.958	24.33	0.115	2.92
	7.3	1.182	30.02	0.142	3.61
	7	1.232	31.29	0.148	3.76
10	32.5	0.331	8.41	0.04	1.02
	26	0.413	10.49	0.05	1.27
	21	0.512	13	0.061	1.55
	17	0.632	16.05	0.076	1.93
	13.5	0.796	20.22	0.096	2.44
	11	0.977	24.82	0.117	2.97
	9	1.194	30.33	0.143	3.63
	7.3	1.473	37.41	0.117	4.5
	7	1.536	39.01	0.184	4.67
12	32.5	0.392	9.96	0.047	1.19
	26	0.49	12.45	0.059	1.5
	21	0.607	15.42	0.073	1.85
	17	0.75	19.05	0.09	2.29
	13.5	0.944	23.98	0.113	2.87
	11	1.159	29.44	0.139	3.53
	9	1.417	35.99	0.17	4.32
	7.3	1.747	44.37	0.21	5.33
	7	1.821	46.25	0.219	5.56

PE PIPE FOR GAS AS PER

EN 1555

Nominal size DN/OD	Minimum wall thickness (e min a)		
	SDR 17,6b	SDR 17	SDR 11
16	2,3c	2,3c	3,0c
20	2,3c	2,3c	3,0c
25	2,3c	2,3c	3,0c
32	2,3c	2,3c	3,0
40	2,3	2,4	3,7
50	2,9	3,0	4,6
63	3,6	3,8	5,8
75	4,3	4,5	6,8
90	5,2	5,4	8,2
110	6,3	6,6	10,0
125	7,1	7,4	11,4
140	8,0	8,3	12,7
160	9,1	9,5	14,6
180	10,3	10,7	16,4
200	11,4	11,9	18,2
225	12,8	13,4	20,5
250	14,2	14,8	22,7
280	15,9	16,6	25,4
315	17,9	18,7	28,6
355	20,2	21,7	32,2
400	22,8	23,7	36,3
450	25,6	26,7	40,9
500	28,4	29,7	45,4
560	31,9	33,2	50,8
630	35,8	37,4	57,2

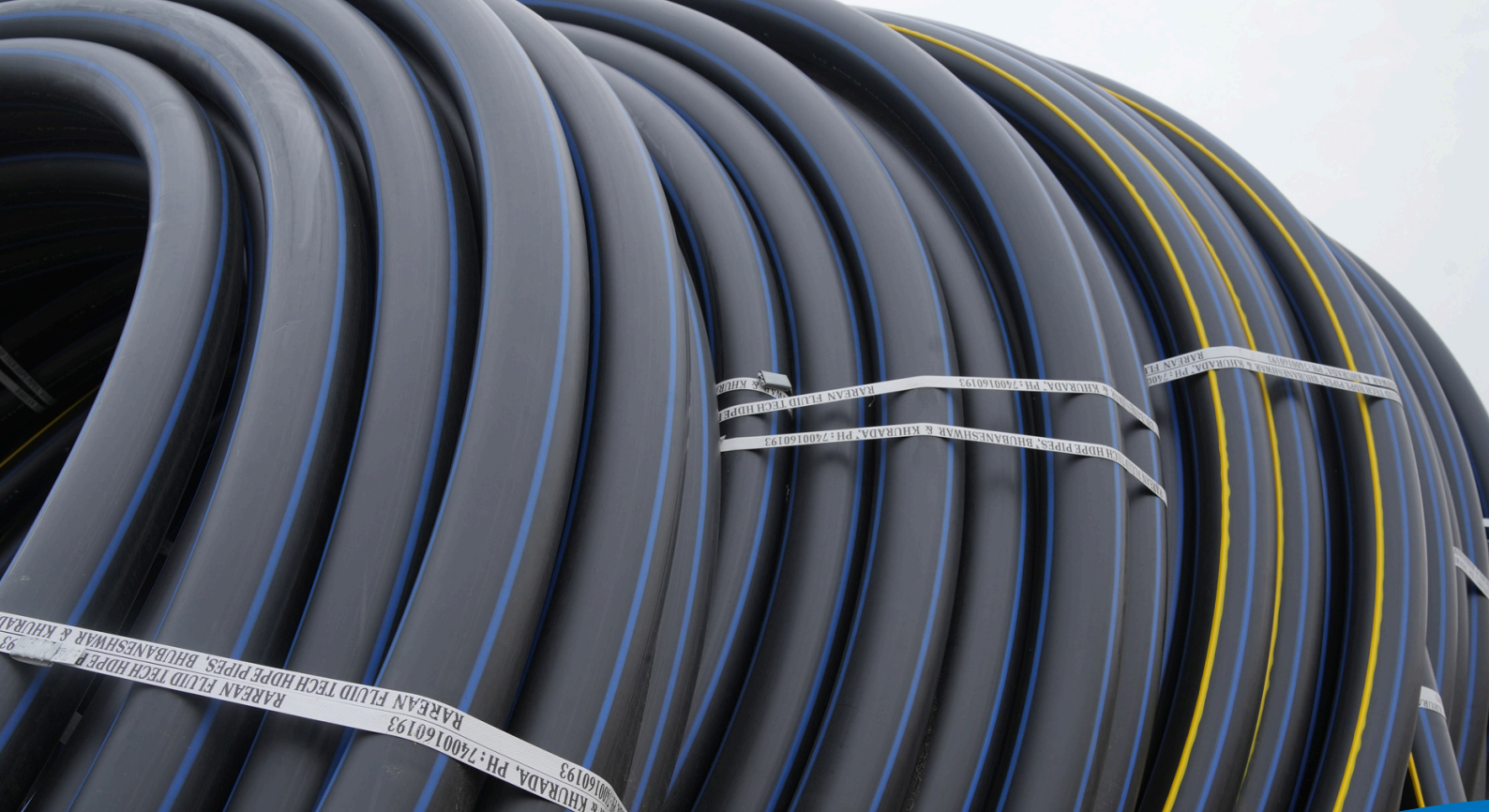
PE PIPE FOR GAS AS PER

ISO: 4437

Nominal outside diameter (dn)	Minimum wall thickness e min a						
	SDR 9	SDR 11b	SDR 13,6	SDR 17b	SDR 17,6c	SDR 21	SDR 26
16	3,0	2,3d	-	-	-	-	-
20	3,0	2,3d	-	-	-	-	-
25	3,0	2,3d	2,3d	-	-	-	-
32	3,6	3,0	2,4d	2,3d	2,3d	-	-
40	4,5	3,7	3,0	2,4d	2,3d	2,3d	-
50	5,6	4,6	3,7	3,0	2,9d	2,4d	2,3d
63	7,1	5,8	4,7	3,8	3,6	3,0	2,5d
75	8,4	6,8	5,6	4,5	4,3	3,6	2,9d
90	10,1	8,2	6,7	5,4	5,2	4,3	3,5
110	12,3	10,0	8,1	6,6	6,3	5,3	4,2
125	14,0	11,4	9,2	7,4	7,1	6,0	4,8
140	15,7	12,7	10,3	8,3	8,0	6,7	5,4
160	17,9	14,6	11,8	9,5	9,1	7,7	6,2
180	20,1	16,4	13,3	10,7	10,3	8,6	6,9
200	22,4	18,2	14,7	11,9	11,4	9,6	7,7
225	25,2	20,5	16,6	13,4	12,8	10,8	8,6
250	27,9	22,7	18,4	14,8	14,2	11,9	9,6
280	31,3	25,4	20,6	16,6	15,9	13,4	10,7
315	35,2	28,6	23,2	18,7	17,9	15,0	12,1
355	39,7	32,2	26,1	21,1	20,2	16,9	13,6
400	44,7	36,4	29,4	23,7	22,8	19,1	15,3
450	50,3	40,9	33,1	26,7	25,6	21,5	17,2
500	55,8	45,5	36,8	29,7	28,4	23,9	19,1
560	-	50,9	41,2	33,2	31,9	26,7	21,4
630	-	57,3	46,3	37,4	35,8	30,0	24,1

INA by RAREAN

RAREAN Fluid-Tech



PE PIPE FOR

WATER APPLICATION

RAREAN
Fluid-Tech

Size
16mm - 800mm
(1/2" - 32")

Specification
IS: 4984, IS: 14333, ISO: 4427,
EN: 12201, ASTM D 3035,
ASTM F 714, AWWA C901,
AWWA C906

Grade
PE100 (PE 4710),
PE80 (PE 3408)
PE63 (PE 2306)

Pressure Rating
PN2.5 - PN25

SDR Rating
DR 41 - DR 7

COLOURS :

www.rareanfluidtech.com

HDPE PIPES FOR POTABLE WATER SUPPLY AS PER

IS: 4984

Grade of Material				SDR 41		SDR 33		SDR 26		SDR 21		SDR 17		SDR 13.6		SDR 11		SDR 9		SDR 7.4		SDR 6	
				NOMINAL PRESSURE (PN) BAR																			
PE 63				PN 2		PN 2.5		PN 3.2		PN 4		PN 5		PN 6		PN 8							
PE 80				PN 2.5		PN 3.2		PN 4		PN 5		PN 6		PN 8		PN 10		PN 12.5		PN 16		PN 20	
PE 100				PN 3		PN 4		PN 5		PN 6		PN 8		PN 10		PN 12.5		PN 16		PN 20			
Nominal Size	OD (mm)		Ovality	WALL THICKNESS (IN MM)																			
	MIN	MAX	MM	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
16	16	16.3	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	2.1	2.2	2.5	2.7	3.1
20	20	20.3	1.2	-	-	-	-	-	-	-	-	-	-	-	-	1.9	2.2	2.3	2.6	2.7	3.1	3.4	3.8
25	25	25.3	1.2	-	-	-	-	-	-	-	-	-	-	1.9	2.2	2.3	2.6	2.8	3.2	3.4	3.8	4.2	4.7
32	32	32.3	1.3	-	-	-	-	-	-	-	-	1.9	2.2	2.4	2.7	2.9	3.3	3.6	4.1	4.4	4.9	5.4	6
40	40	40.4	1.4	-	-	-	-	-	-	1.9	2.2	2.4	2.7	3	3.4	3.7	4.2	4.5	5.1	5.4	6	6.7	7.5
50	50	50.4	1.4	-	-	-	-	2	2.3	2.4	2.7	3	3.4	3.7	4.2	4.6	5.2	5.6	6.3	6.8	7.6	8.4	9.3
63	63	63.4	1.5	-	-	-	-	2.5	2.9	3	3.4	3.7	4.2	4.7	5.3	5.8	6.5	7	7.8	8.6	9.6	10.5	11.7
75	75	75.5	1.6	1.9	2.2	2.3	2.6	2.9	3.3	3.6	4.1	4.5	5.1	5.6	6.3	6.9	7.7	8.4	9.3	10.2	11.3	12.5	13.9
90	90	90.6	1.8	2.2	2.5	2.8	3.2	3.5	4	4.3	4.8	5.3	5.9	6.7	7.5	8.2	9.1	10	11.1	12.2	13.5	15	16.6
110	110	110.7	2.2	2.7	3.1	3.4	3.8	4.3	4.8	5.3	6	6.5	7.3	8.1	9	10	11.1	12.3	13.6	14.9	16.5	18.4	20.3
125	125	125.8	2.5	3.1	3.5	3.8	4.3	4.8	5.4	6	6.7	7.4	8.2	9.2	10.2	11.4	12.7	13.9	15.4	16.9	18.7	20.9	23.1
140	140	140.9	2.8	3.5	4	4.3	4.8	5.4	6	6.7	7.5	8.3	9.2	10.3	11.4	12.8	14.2	15.6	17.3	19	21	23.4	25.8
160	160	161	3.2	3.9	4.4	4.9	5.5	6.2	6.9	7.7	8.6	9.5	10.6	11.8	13.1	14.6	16.2	17.8	19.7	21.7	24	26.7	29.5
180	180	181.1	3.6	4.4	4.9	5.5	6.2	7	7.8	8.6	9.6	10.6	11.8	13.3	14.7	16.4	18.1	20	22.1	24.4	26.9	30	33.1
200	200	201.2	4	4.9	5.5	6.1	6.8	7.7	8.6	9.6	10.7	11.8	13.1	14.7	16.3	18.2	20.1	22.3	24.6	27.1	29.9	33.4	36.8
225	225	226.4	4.5	5.5	6.2	6.9	7.7	8.7	9.7	10.8	12	13.3	14.7	16.6	18.4	20.5	22.7	25	27.6	30.5	33.7	37.5	41.4
250	250	251.5	5	6.1	6.8	7.6	8.5	9.6	10.8	12	13.3	14.7	16.3	18.4	20.3	22.8	25.2	27.8	30.7	33.8	37.3	41.7	46
280	280	281.7	9.8	6.9	7.7	8.5	9.5	10.8	12	13.4	14.8	16.5	18.3	20.6	22.8	25.5	28.2	31.2	34.4	37.9	41.8	46.7	51.5
315	315	316.9	11.1	7.7	8.6	9.6	10.7	12.2	13.5	15	16.6	18.6	20.6	23.2	25.6	28.7	31.7	35	38.6	42.6	47	52.5	57.9
355	355	357.2	12.5	8.7	9.7	10.8	12	13.7	15.2	16	18.7	20.9	23.1	26.1	28.8	32.3	35.6	39.5	43.6	48	52.9	59.2	65.2
400	400	402.4	14	9.8	10.9	12.2	13.5	15.4	17	19.1	21.1	23.6	26.1	29.5	32.6	36.4	40.1	44.5	49.1	54.1	59.6	66.7	73.5
450	450	452.7	15.6	11	12.2	13.7	15.2	17.3	19.1	21.5	23.8	26.5	29.3	33	26.5	40.9	45.1	50	55.1	60.9	67.1	75	82.6
500	500	503	17.5	12.2	13.5	15.2	16.8	19.3	21.3	23.9	26.4	29.5	32.6	36.8	40.6	45.4	50.2	55.6	61.3	67.6	74.5	83.4	91.8

INVA by RAREAN

RAREAN Fluid-Tech

HDPE PIPES FOR POTABLE WATER SUPPLY AS PER

ISO: 4427

Grade Material	Pipe Series									
	SDR 6	SDR 7.4	SDR 9	SDR 11	SDR 13.6	SDR 17	SDR 21	SDR 26	SDR 33	SDR 41
	S 2.5	S 3.2	S 4	S 5	S 6.3	S 8	S 10	S 12.5	S 16	S 20
	NOMINAL PRESSURE (PN) bar									
PE 40	-	PN 10	PN 8	-	PN 5	PN 4	PN 3.2	PN 2.5	-	-
PE 63	-	-	-	PN 10	PN 8	-	PN 5	PN 4	PN 3.2	PN 2.6
PE 80	PN 25	PN 20	PN 16	PN 12.5	PN 10	PN 8	PN 6	PN 6	PN 4	PN 3.2
PE 100	-	PN 25	PN 20	PN 16	PN 12.5	PN 10	PN 8	PN 8	PN 5	PN 4

Nominal Size	Wall Thickness (in mm)																			
	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax
16	3	3.4	2.3	2.7	2	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	3.4	3.9	3	3.4	2.3	2.7	2	2.3	-	-	-	-	-	-	-	-	-	-	-	-
25	4.2	4.8	3.5	4	3	3.4	2.3	2.7	2	2.3	-	-	-	-	-	-	-	-	-	-
32	5.4	6.1	4.4	5	3.6	4.1	3	3.4	2.4	2.8	2	2.3	-	-	-	-	-	-	-	-
40	6.7	7.5	5.5	6.2	4.5	5.1	3.7	4.2	3	3.5	2.4	2.8	2	2.3	-	-	-	-	-	-
50	8.3	9.3	6.9	8	5.6	6.3	4.6	5.2	3.7	4.2	3	3.4	2.4	2.8	2	2.3	-	-	-	-
63	10.5	11.7	8.6	9.6	7.1	8	5.8	6.5	4.7	5.3	3.8	4.3	3	3.4	2.5	2.9	-	-	-	-
75	12.5	13.9	10.3	11.5	8.4	9.4	6.8	7.6	5.6	6.3	4.5	5.1	3.6	4.1	2.9	3.3	-	-	-	-
90	15	16.7	12.3	13.7	10.1	11.3	8.1	9.2	6.7	7.5	5.4	6.1	4.3	4.9	3.5	4	-	-	-	-
110	18.3	20	15.1	16.8	12.3	13.7	10	11.1	8.1	9.1	6.6	7.4	5.3	6	4.2	4.8	-	-	-	-
125	21	23	17.1	19	14	15.6	11.4	12.7	9.1	10.3	7.4	8.3	6	6.7	4.8	5.4	-	-	-	-
140	23.3	25.8	19.2	21.3	15.7	17.4	12.7	14.1	10.3	11.2	8.3	9.3	6.7	7.5	5.4	6.1	-	-	-	-
160	26.6	29.4	21.9	24.2	17.9	19.8	14.6	16.2	11.8	13.1	9.5	10.6	7.7	8.6	6.2	7	-	-	-	-
180	29.9	33	24.6	27.2	20.1	22.3	16.4	18.2	13.3	14.8	10.7	11.9	8.6	9.6	6.9	7.7	-	-	-	-
200	33.2	36.7	27.4	30.3	22.4	24.8	18.2	20.2	14.7	16.3	12	13.2	9.6	10.7	7.7	8.6	-	-	-	-
225	37.4	41.3	30.8	34	25.2	27.9	20.5	22.7	16.6	18.4	13.4	14.9	10.8	12	8.6	9.6	-	-	-	-
250	41.5	45.8	34.2	37.8	27.9	30.8	22.7	25.1	18.4	20.4	14.8	16.4	11.9	13.2	9.6	10.7	-	-	-	-
280	46.5	51.3	38.3	42.3	31.3	34.6	23.4	28.1	20.6	22.8	16.6	18.4	13.4	14.9	10.7	11.9	-	-	-	-
315	52.3	57.7	43.1	47.6	35.3	38.9	28.6	31.6	23.2	25.7	18.7	20.7	15	16.6	12.1	13.5	9.7	10.8	7.7	8.6
355	59	65	48.5	53.5	39.7	43.8	32.2	35.6	26.1	28.9	21.1	23.4	16.9	18.7	13.6	15.1	10.9	12.1	8.7	9.7
400	-	-	54.7	60.3	44.7	49.3	36.3	40.1	29.4	32.5	23.7	26.2	19.1	21.2	15.3	17	12.3	13.7	9.8	10.9
450	-	-	61.5	67.8	50.3	55.5	40.9	45.1	33.1	36.6	26.7	29.5	21.5	23.8	17.2	19.1	13.8	15.3	11	12.2
500	-	-	-	-	55.8	61.6	45.4	50.1	36.8	40.6	29.7	32.8	23.9	26.4	19.1	21.2	15.3	17	12.3	13.7

INA by RAREAN

RAREAN Fluid-Tech

HDPE PIPES FOR POTABLE WATER SUPPLY AS PER

ASTM F 714

Nominal pipe size	Dimension ratio									
	41	32.5	26	21	17	13.5	11	9	7	7.3
4	0.11	0.138	0.173	0.214	0.265	0.333	0.409	0.5	0.643	0.616
5	0.136	0.171	0.214	0.265	0.317	0.412	0.506	0.618	0.795	0.762
6	0.162	0.204	0.255	0.315	0.39	0.491	0.602	0.736	0.946	0.908
7	0.174	0.219	0.274	0.34	0.42	0.528	0.648	0.792	1.018	0.976
8	0.21	0.265	0.332	0.411	0.507	0.639	0.784	0.958	1.232	1.182
10	0.262	0.331	0.413	0.512	0.632	0.796	0.977	1.194	1.536	1.473
12	0.31	0.392	0.49	0.607	0.75	0.944	1.159	1.417	1.821	1.747
14	0.341	0.431	0.538	0.667	0.824	1.037	1.273	1.556	2	1.918
16	0.39	0.492	0.615	0.762	0.941	1.185	1.455	1.778	2.286	2.192
18	0.439	0.554	0.692	0.857	1.059	1.333	1.636	2	2.571	2.466
20	0.488	0.615	0.769	0.952	1.176	1.481	1.818	2.222	2.857	-
22	0.537	0.677	0.846	1.048	1.294	1.63	2	2.444	3.143	-
24	0.585	0.738	0.923	1.143	1.412	1.778	2.182	2.667	3.429	-
26	0.634	0.8	1	1.238	1.529	1.926	2.364	2.889	3.714	-
28	0.683	0.862	1.077	1.333	1.647	2.074	2.545	3.111	-	-
30	0.732	0.923	1.154	1.429	1.765	2.222	2.727	3.333	-	-
32	0.78	0.985	1.231	1.524	1.882	2.37	2.909	3.556	-	-
34	0.829	1.046	1.308	1.619	2	2.519	3.091	3.778	-	-
36	0.878	1.108	1.385	1.714	2.118	2.667	3.273	4	-	-
42	1.024	1.292	1.615	2	2.471	3.111	3.818	-	-	-
48	1.171	1.477	1.846	2.286	2.824	3.556	-	-	-	-
54	1.317	1.662	2.077	2.571	3.176	-	-	-	-	-
60	-	1.846	2.308	2.857	3.529	-	-	-	-	-
63	-	1.938	2.423	3	3.706	-	-	-	-	-
65	-	2	2.5	3.095	3.824	-	-	-	-	-

HDPE PIPES FOR POTABLE WATER SUPPLY AS PER

EN: 12201

Nominal size	Nominal outer diamter	Mean outer diameter		Maximum out-of-roundness (ovality)
DN/OD	Dn	Dem,min	Dem,max	B,D
16	16	16,0	16,3	1,2
20	20	20,0	20,3	1,2
25	25	25,0	25,3	1,2
32	32	32,0	32,3	1,3
40	40	40,0	40,4	1,4
50	50	50,0	50,4	1,4
63	63	63,0	63,4	1,5
75	75	75,0	75,5	1,6
90	90	90,0	90,6	1,8
110	110	110,0	110,7	2,2
125	125	125,0	125,8	2,5
140	140	140,0	140,9	2,8
160	160	160,0	161,0	3,2
180	180	180,0	181,1	3,6
200	200	200,0	201,2	4,0
225	225	225,0	226,4	4,5
250	250	250,0	251,5	5,0
280	280	280,0	281,7	9,8
315	315	315,0	316,9	11,1
355	355	355,0	357,2	12,5
400	400	400,0	402,4	14,0
450	450	450,0	452,7	15,6
500	500	500,0	503,0	17,5

INA by RAREAN

RAREAN Fluid-Tech

PE PIPE FOR

SPRINKLER IRRIGATION

RAREAN
Fluid-Tech

Size
40mm - 140mm
(1 1/2" - 5")

Type
Class 1 -4

Specification
IS: 17425

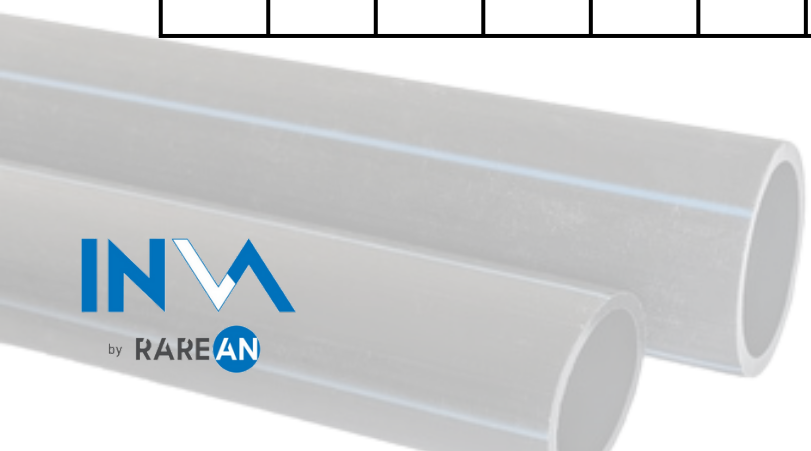
COLOURS :

www.rareanfluidtech.com

PE PIPE FOR SPRINKLER IRRIGATION SYSTEM AS PER

IS: 17425

Nominal diameter	Outside diameter	Nominal tolerance on outside diameter	Ovality	Wall thickness (in mm)							
				Class -1 (0.25 Mpa)		Class - 2 (0.32 Mpa)		Class - 3 (0.40 Mpa)		Class - 4 (0,60 Mpa)	
				Min	Max	Min	Max	Min	Max	Min	Max
40	40	0.4	1.4	-						2.3	2.8
50	50	0.5	1.4	-				2	2.4	2.9	3.4
63	63	0.6	1.5	-		2	2.4	2.5	2.9	3.8	4.4
75	75	0.7	1.6	2	2.4	2.5	2.9	3	3.4	4.5	5.2
90	90	0.8	1.8	2.2	2.6	2.9	3.4	3.5	4.1	5.3	6.1
110	110	1	2.2	2.7	3.2	3.4	3.9	4.2	4.8	6.5	7.4
125	125	1.2	2.5	3.1	3.6	3.8	4.5	4.8	5.5	7.4	8.3
140	140	1.3	2.8	3.5	4.1	4.3	5	5.4	6.1	8.3	9.3



INA by RAREAN

RAREAN Fluid-Tech

PE PIPE FOR

SEWERAGE

RAREAN
Fluid-Tech

Size
63mm - 800mm
(2" - 32")

Pressure Class
PN 2.5 - PN 10

Grade
PE 80, PE 100

Specification
IS: 14333, ISO: 4437,
ASTM F 714

COLOURS :

www.rareanfluidtech.com

PE PIPE FOR SEWERAGE APPLICATION AS PER

IS: 14333

Grade of Material				SDR 41		SDR 33		SDR 26		SDR 21		SDR 17		SDR 13.6		SDR 11		SDR 9		SDR 7.4		SDR 6	
				NOMINAL PRESSURE (PN) bar																			
PE 63				PN 2		PN 2.5		PN 3.2		PN 4		PN 5		PN 6		PN 8							
PE 80				PN 2.5		PN 3.2		PN 4		PN 5		PN 6		PN 8		PN 10		PN 12.5		PN 16		PN 20	
PE 100				PN 3		PN 4		PN 5		PN 6		PN 8		PN 10		PN 12.5		PN 16		PN 20			
Nominal Size	OD (mm)		Ovality	Wall Thickness (in mm)																			
	MIN	MAX	MM	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
16	16	16.3	1.2															1.8	2.1	2.2	2.5	2.7	3.1
20	20	20.3	1.2													1.9	2.2	2.3	2.6	2.7	3.1	3.4	3.8
25	25	25.3	1.2											1.9	2.2	2.3	2.6	2.8	3.2	3.4	3.8	4.2	4.7
32	32	32.3	1.3									1.9	2.2	2.4	2.7	2.9	3.3	3.6	4.1	4.4	4.9	5.4	6
40	40	40.4	1.4							1.9	2.2	2.4	2.7	3	3.4	3.7	4.2	4.5	5.1	5.4	6	6.7	7.5
50	50	50.4	1.4					2	2.3	2.4	2.7	3	3.4	3.7	4.2	4.6	5.2	5.6	6.3	6.8	7.6	8.4	9.3
63	63	63.4	1.5					2.5	2.9	3	3.4	3.7	4.2	4.7	5.3	5.8	6.5	7	7.8	8.6	9.6	10.5	11.7
75	75	75.5	1.6	1.9	2.2	2.3	2.6	2.9	3.3	3.6	4.1	4.5	5.1	5.6	6.3	6.9	7.7	8.4	9.3	10.2	11.3	12.5	13.9
90	90	90.6	1.8	2.2	2.5	2.8	3.2	3.5	4	4.3	4.8	5.3	5.9	6.7	7.5	8.2	9.1	10	11.1	12.2	13.5	15	16.6
110	110	110.7	2.2	2.7	3.1	3.4	3.8	4.3	4.8	5.3	6	6.5	7.3	8.1	9	10	11.1	12.3	13.6	14.9	16.5	18.4	20.3
125	125	125.8	2.5	3.1	3.5	3.8	4.3	4.8	5.4	6	6.7	7.4	8.2	9.2	10.2	11.4	12.7	13.9	15.4	16.9	18.7	20.9	23.1
140	140	140.9	2.8	3.5	4	4.3	4.8	5.4	6	6.7	7.5	8.3	9.2	10.3	11.4	12.8	14.2	15.6	17.3	19	21	23.4	25.8
160	160	161	3.2	3.9	4.4	4.9	5.5	6.2	6.9	7.7	8.6	9.5	10.6	11.8	13.1	14.6	16.2	17.8	19.7	21.7	24	26.7	29.5
180	180	181.1	3.6	4.4	4.9	5.5	6.2	7	7.8	8.6	9.6	10.6	11.8	13.3	14.7	16.4	18.1	20	22.1	24.4	26.9	30	33.1
200	200	201.2	4	4.9	5.5	6.1	6.8	7.7	8.6	9.6	10.7	11.8	13.1	14.7	16.3	18.2	20.1	22.3	24.6	27.1	29.9	33.4	36.8
225	225	226.4	4.5	5.5	6.2	6.9	7.7	8.7	9.7	10.8	12	13.3	14.7	16.6	18.4	20.5	22.7	25	27.6	30.5	33.7	37.5	41.4
250	250	251.5	5	6.1	6.8	7.6	8.5	9.6	10.8	12	13.3	14.7	16.3	18.4	20.3	22.8	25.2	27.8	30.7	33.8	37.3	41.7	46
280	280	281.7	9.8	6.9	7.7	8.5	9.5	10.8	12	13.4	14.8	16.5	18.3	20.6	22.8	25.5	28.2	31.2	34.4	37.9	41.8	46.7	51.5
315	315	316.9	11.1	7.7	8.6	9.6	10.7	12.2	13.5	15	16.6	18.6	20.6	23.2	25.6	28.7	31.7	35	38.6	42.6	47	52.5	57.9
355	355	357.2	12.5	8.7	9.7	10.8	12	13.7	15.2	16	18.7	20.9	23.1	26.1	28.8	32.3	35.6	39.5	43.6	48	52.9	59.2	65.2
400	400	402.4	14	9.8	10.9	12.2	13.5	15.4	17	19.1	21.1	23.6	26.1	29.5	32.6	36.4	40.1	44.5	49.1	54.1	59.6	66.7	73.5
450	450	452.7	15.6	11	12.2	13.7	15.2	17.3	19.1	21.5	23.8	26.5	29.3	33	26.5	40.9	45.1	50	55.1	60.9	67.1	75	82.6
500	500	503	17.5	12.2	13.5	15.2	16.8	19.3	21.3	23.9	26.4	29.5	32.6	36.8	40.6	45.4	50.2	55.6	61.3	67.6	74.5	83.4	91.8

INA by RAREAN

RAREAN Fluid-Tech

PE PIPE FOR SEWERAGE APPLICATION AS PER

ASTM F 714

Nominal pipe size	Dimension ratio									
	41	32.5	26	21	17	13.5	11	9	7	7.3
4	0.11	0.138	0.173	0.214	0.265	0.333	0.409	0.5	0.643	0.616
5	0.136	0.171	0.214	0.265	0.317	0.412	0.506	0.618	0.795	0.762
6	0.162	0.204	0.255	0.315	0.39	0.491	0.602	0.736	0.946	0.908
7	0.174	0.219	0.274	0.34	0.42	0.528	0.648	0.792	1.018	0.976
8	0.21	0.265	0.332	0.411	0.507	0.639	0.784	0.958	1.232	1.182
10	0.262	0.331	0.413	0.512	0.632	0.796	0.977	1.194	1.536	1.473
12	0.31	0.392	0.49	0.607	0.75	0.944	1.159	1.417	1.821	1.747
14	0.341	0.431	0.538	0.667	0.824	1.037	1.273	1.556	2	1.918
16	0.39	0.492	0.615	0.762	0.941	1.185	1.455	1.778	2.286	2.192
18	0.439	0.554	0.692	0.857	1.059	1.333	1.636	2	2.571	2.466
20	0.488	0.615	0.769	0.952	1.176	1.481	1.818	2.222	2.857	-
22	0.537	0.677	0.846	1.048	1.294	1.63	2	2.444	3.143	-
24	0.585	0.738	0.923	1.143	1.412	1.778	2.182	2.667	3.429	-
26	0.634	0.8	1	1.238	1.529	1.926	2.364	2.889	3.714	-
28	0.683	0.862	1.077	1.333	1.647	2.074	2.545	3.111	-	-
30	0.732	0.923	1.154	1.429	1.765	2.222	2.727	3.333	-	-
32	0.78	0.985	1.231	1.524	1.882	2.37	2.909	3.556	-	-
34	0.829	1.046	1.308	1.619	2	2.519	3.091	3.778	-	-
36	0.878	1.108	1.385	1.714	2.118	2.667	3.273	4	-	-
42	1.024	1.292	1.615	2	2.471	3.111	3.818	-	-	-
48	1.171	1.477	1.846	2.286	2.824	3.556	-	-	-	-
54	1.317	1.662	2.077	2.571	3.176	-	-	-	-	-
60	-	1.846	2.308	2.857	3.529	-	-	-	-	-
63	-	1.938	2.423	3	3.706	-	-	-	-	-
65	-	2	2.5	3.095	3.824	-	-	-	-	-

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HDPE PIPE FOR SEWERAGE APPLICATION AS PER

ISO: 4427

Grade Material	Pipe Series									
	SDR 6	SDR 7.4	SDR 9	SDR 11	SDR 13.6	SDR 17	SDR 21	SDR 26	SDR 33	SDR 41
	S 2.5	S 3.2	S 4	S 5	S 6.3	S 8	S 10	S 12.5	S 16	S 20
	NOMINAL PRESSURE (PN) bar									
PE 40	-	PN 10	PN 8	-	PN 5	PN 4	PN 3.2	PN 2.5	-	-
PE 63	-	-	-	PN 10	PN 8	-	PN 5	PN 4	PN 3.2	PN 2.6
PE 80	PN 25	PN 20	PN 16	PN 12.5	PN 10	PN 8	PN 6	PN 6	PN 4	PN 3.2
PE 100	-	PN 25	PN 20	PN 16	PN 12.5	PN 10	PN 8	PN 8	PN 5	PN 4

Nominal Size	Wall Thickness (in mm)																			
	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax	emin	emax
16	3	3.4	2.3	2.7	2	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	3.4	3.9	3	3.4	2.3	2.7	2	2.3	-	-	-	-	-	-	-	-	-	-	-	-
25	4.2	4.8	3.5	4	3	3.4	2.3	2.7	2	2.3	-	-	-	-	-	-	-	-	-	-
32	5.4	6.1	4.4	5	3.6	4.1	3	3.4	2.4	2.8	2	2.3	-	-	-	-	-	-	-	-
40	6.7	7.5	5.5	6.2	4.5	5.1	3.7	4.2	3	3.5	2.4	2.8	2	2.3	-	-	-	-	-	-
50	8.3	9.3	6.9	8	5.6	6.3	4.6	5.2	3.7	4.2	3	3.4	2.4	2.8	2	2.3	-	-	-	-
63	10.5	11.7	8.6	9.6	7.1	8	5.8	6.5	4.7	5.3	3.8	4.3	3	3.4	2.5	2.9	-	-	-	-
75	12.5	13.9	10.3	11.5	8.4	9.4	6.8	7.6	5.6	6.3	4.5	5.1	3.6	4.1	2.9	3.3	-	-	-	-
90	15	16.7	12.3	13.7	10.1	11.3	8.1	9.2	6.7	7.5	5.4	6.1	4.3	4.9	3.5	4	-	-	-	-
110	18.3	20	15.1	16.8	12.3	13.7	10	11.1	8.1	9.1	6.6	7.4	5.3	6	4.2	4.8	-	-	-	-
125	21	23	17.1	19	14	15.6	11.4	12.7	9.1	10.3	7.4	8.3	6	6.7	4.8	5.4	-	-	-	-
140	23.3	25.8	19.2	21.3	15.7	17.4	12.7	14.1	10.3	11.2	8.3	9.3	6.7	7.5	5.4	6.1	-	-	-	-
160	26.6	29.4	21.9	24.2	17.9	19.8	14.6	16.2	11.8	13.1	9.5	10.6	7.7	8.6	6.2	7	-	-	-	-
180	29.9	33	24.6	27.2	20.1	22.3	16.4	18.2	13.3	14.8	10.7	11.9	8.6	9.6	6.9	7.7	-	-	-	-
200	33.2	36.7	27.4	30.3	22.4	24.8	18.2	20.2	14.7	16.3	12	13.2	9.6	10.7	7.7	8.6	-	-	-	-
225	37.4	41.3	30.8	34	25.2	27.9	20.5	22.7	16.6	18.4	13.4	14.9	10.8	12	8.6	9.6	-	-	-	-
250	41.5	45.8	34.2	37.8	27.9	30.8	22.7	25.1	18.4	20.4	14.8	16.4	11.9	13.2	9.6	10.7	-	-	-	-
280	46.5	51.3	38.3	42.3	31.3	34.6	23.4	28.1	20.6	22.8	16.6	18.4	13.4	14.9	10.7	11.9	-	-	-	-
315	52.3	57.7	43.1	47.6	35.3	38.9	28.6	31.6	23.2	25.7	18.7	20.7	15	16.6	12.1	13.5	9.7	10.8	7.7	8.6
355	59	65	48.5	53.5	39.7	43.8	32.2	35.6	26.1	28.9	21.1	23.4	16.9	18.7	13.6	15.1	10.9	12.1	8.7	9.7
400	-	-	54.7	60.3	44.7	49.3	36.3	40.1	29.4	32.5	23.7	26.2	19.1	21.2	15.3	17	12.3	13.7	9.8	10.9
450	-	-	61.5	67.8	50.3	55.5	40.9	45.1	33.1	36.6	26.7	29.5	21.5	23.8	17.2	19.1	13.8	15.3	11	12.2
500	-	-	-	-	55.8	61.6	45.4	50.1	36.8	40.6	29.7	32.8	23.9	26.4	19.1	21.2	15.3	17	12.3	13.7

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