



**Gazloulah  
Manufacturing  
Company  
(PJS)**



**2022**



Nowadays, the use of polymers in different industries is increasing rapidly and plastics are a suitable replacement for metals and minerals.

The Gazloulah manufacturing Co. is an Iranian PE pipe manufacturing company headquartered in Tehran, Iran. Gazloulah as a public joint stock company is a member of Petrochemical Industries Investment Company (PIIC) group and Iran's first producer of HDPE pipes for gas distribution. Since 1997 with efficient use of advanced technologies applied in highly developed European countries such as Austria, Germany and leading companies such as Cincinnati, Battenfeld, Drossbach and Ferromatik and by equipping with advanced acrodite laboratory, offering high quality products with complete international and national standards and certifications in the two sub sectors of gas and water supply (urban and agricultural).

Using modern technologies and having 9 production lines with nominal capacity of 17,700 tons and obtaining complete national and international certificates and confirmations, this company is operating as one of the largest and most valid producers of polyethylene pipes.

The Gazloulah manufacturing Co. subsidiaries are:

- GHADR double wall pipes Mfg Co.
- SELSELEH AB HAYAT KERMAN Mfg. Co.
- FARAVARD QESHM CHEMICAL Co.

Polyethylene pipes and fittings have a wide range of applications, which is as follows:

- Gas distribution networks
- Potable water networks
- Drainage systems
- Urban and rural water supply networks
- Urban and rural sewerage systems
- Industrial liquid and wastewater systems
- Electric cables cover
- Steel pipe coating for oil pipeline
- Floating irrigation systems
- Communication and optical fiber cables cover



## Gazloulah Manufacturing Group Products

- HDPE single wall pipes with yellow stripe for gas distribution (Iranian National Standardization Organization INSO 11233-2, BS EN 1555-2, ISO 4437-2)
- HDPE water supply single wall pipes (Iranian National Standardization Organization INSO 14427-2, BS EN 12201-2, ISO 4427-2)
- HDPE double wall corrugated pipes for sewerage system (Iranian National Standardization Organization INSO 9116-3, ISO 21138-3, DIN 16961-1,2)
- Double wall corrugated sewerage fittings and manhole (Institute of Standards and Industrial Research of Iran ISIRI 14148, ISO 13272, DIN 1696-1)
- Electrofusion fittings (Iranian National Standardization Organization INSO 11233-3, BS EN 1555-3, ISO 4437-3)
- Plastic pallet in different sizes
- Three layer PE sheet
- Stretch and shrink film
- Polyethylene tanks





## Single Wall Pipes for Gas Distribution

Nowadays, high density polyethylene single wall pipes for gas distribution due to high compatibility with critical conditions (very high or low temperature and high pressure), high flexibility and resistance to abrasion, fracture and cracking are widely used in gas supply networks.

The technical specifications of company HDPE single wall pipes for gas distribution according to INSO 11233-2, BS EN 1555-2, ISO 4437-2 standards are shown in Table 1.

Nominal size DN/OD (mm)	Minimum Mean Outside Diameter (mm)	Maximum Mean Outside Diameter (mm)	Maximum out of Roundness (mm) (Straight pipe)	Wall Thickness Tolerances				Pipe Length (m)	Dimension of Strips	
				Min W.T (mm) (PE 100)		Tolerance on wall thicknesses			Coil / Straight	Width (mm)
				SDR 11	SDR 13.6	Plus Tolerance SDR 11	Plus Tolerance SDR 13.6			
25	25.0	25.3	1.2	3	-	0.4	-	100(coil)	3-5	MAX 10% OF Wall Thickness
32	32.0	32.3	1.3	3	-	0.4	-	100(coil)	3-5	
63	63.0	63.4	1.5	5.8	4.7	0.7	0.6	100(coil)	3-5	
90	90.0	90.6	1.8	8.2	6.7	1.0	0.8	50(coil)	5-10	
110	110.0	110.7	2.2	-	8.1	-	1.0	50(coil) or 12(straight)	5-10	
125	125.0	125.8	2.5	-	9.2	-	1.1	12(straight)	5-10	
160	160.0	161.0	3.2	-	11.8	-	1.3	12(straight)	5-10	
200	200.0	201.2	4.0	-	14.7	-	1.6	12(straight)	5-12	
225	225.0	226.4	4.5	-	16.6	-	1.8	12(straight)	5-12	





## Water Supply Single Wall Pipes and Drip Irrigation Pipes

Polyethylene pipes are suitable for transferring liquids containing abrasive particulates. Due to low modulus of elasticity, high efficiency, low friction coefficient and many other specific characteristics, the polyethylene pipes are one of the safest and cheapest methods for liquids transfer. Further, the installation and implementation of polyethylene pipes are easier than other pipe types due to lower weight, more flexibility and reversibility. The technical specifications of Gazloulah HDPE single wall pipes for water supply according to DIN8074, INSO 14427-2 and ISO 4427-2 standards are shown in Table 2. The Gazloulah manufacturing Co. also is the producer of drip irrigation pipes with PE40 materials according to 7607 national standards.

DIN8074:2011-2012																					
SDR		41		33		26		21		17		13.6		11		9		7.4			
PE80 SF1.2 5	PN (BAR)	3.2	4	5	6	8	10	12.5	16	20	25	30	35	40	45	50	60	80	100		
PE80 SF1.6	PN (BAR)	2.5	3.2	4	5	6	8	10	12.5	16	20	25	30	35	40	45	50	60	80		
PE10 0 SF1.2 5	PN (BAR)	4	5	6	8	10	12.5	16	20	25	30	35	40	45	50	60	80	100	125		
PE10 0 SE1.6	PN (BAR)	3.2	4	5	6	8	10	12.5	16	20	25	30	35	40	45	50	60	80	100		
mm	S In mm	MASS In kg/m	S In mm	MASS In kg/m	S In mm	MASS In kg/m	S In mm	MASS In kg/m	S In mm	MASS In kg/m	S In mm	MASS In kg/m	S In mm	MASS In kg/m	S In mm	MASS In kg/m	S In mm	MASS In kg/m	S In mm	MASS In kg/m	
20	-	-	-	-	-	-	-	-	-	-	-	-	2.0	0.118	2.3	0.134	3.0	0.164			
25	-	-	-	-	-	-	-	-	-	-	-	2.0	0.151	2.3	0.173	3.0	0.202	3.5	0.243		
32	-	-	-	-	-	-	-	-	2.0	0.198	2.4	0.235	3.0	0.282	3.6	0.331	4.4	0.390			
40	-	-	-	-	-	-	2.0	0.251	2.4	0.299	3.0	0.360	3.7	0.434	4.5	0.514	5.5	0.607			
50	-	-	-	-	2.0	0.317	2.4	0.378	3.0	0.458	3.7	0.555	4.6	0.673	5.6	0.796	6.9	0.945			
63	-	-	-	-	2.5	0.500	3.0	0.586	3.8	0.728	4.7	0.883	5.8	1.06	7.1	1.27	8.6	1.49			
75	-	-	-	-	2.9	0.683	3.8	0.836	4.5	1.03	5.6	1.25	6.8	1.48	8.4	1.78	10.3	2.12			
90	-	-	-	-	3.5	0.988	4.3	1.20	5.4	1.47	6.7	1.79	8.2	2.14	10.1	2.57	12.3	3.03			
110	-	-	-	-	4.2	1.45	5.3	1.79	6.6	2.19	8.1	2.64	10.0	3.18	12.3	3.82	15.1	4.54			
125	-	-	-	-	4.8	1.86	6.0	2.29	7.4	2.79	9.2	3.40	11.4	4.12	14.0	4.92	17.1	5.84			
140	-	-	-	-	5.4	2.35	6.7	2.86	8.3	3.50	10.3	4.26	12.7	5.13	15.7	6.18	19.2	7.33			
160	-	-	-	-	6.2	3.08	7.7	3.75	9.5	4.57	11.8	5.56	14.6	6.74	17.9	8.04	21.9	9.54			
180	-	-	-	-	6.9	3.83	8.6	4.71	10.7	5.77	13.3	7.05	16.4	8.51	20.1	10.2	24.6	12.1			
200	-	-	-	-	7.7	4.74	9.6	5.84	11.9	7.12	14.7	8.65	18.2	10.5	22.4	12.6	27.4	14.9			
225	-	-	-	-	8.6	5.96	10.8	7.37	13.4	9.03	16.6	11.0	20.5	13.3	25.2	15.9	30.8	18.8			
250	-	-	-	-	9.6	7.38	11.9	9.02	14.8	11.1	18.4	13.5	22.7	16.3	27.9	19.6	34.2	23.3			
315	7.7	7.59	9.7	9.47	12.1	12.1	15.0	14.3	18.7	17.6	23.2	21.5	28.6	25.9	35.2	31.1	43.1	36.9			
355	8.7	9.65	10.9	12.0	13.6	13.6	16.9	18.2	21.1	22.4	26.1	27.2	32.2	32.9	39.7	39.5	48.5	46.8			
400	9.8	12.2	12.3	15.2	15.3	15.2	19.1	23.1	23.7	28.3	29.4	34.5	36.3	41.7	44.7	50.1	54.7	59.4			
450	11	15.4	13.8	19.2	17.2	23.7	21.5	29.3	26.7	35.8	33.1	43.7	40.9	52.8	50.3	63.4	61.5	75.2			
500	12.3	19.2	15.3	23.6	19.1	29.2	23.9	36.1	29.7	44.2	36.8	53.9	45.4	65.2	55.8	75.1	68.3	92.0			
560	13.7	23.9	17.2	29.7	21.4	36.6	26.6	45.2	33.2	55.4	41.2	67.6	50.8	81.7	62.5	98					
630	15.4	30.2	19.3	37.5	24.1	46.4	30	57	37.4	70.20	46.3	85.5	57.2	103							

SDR: Standard Dimension Ratio  
SF: Safety Factor  
PN: Nominal Pressure





## Double Wall Corrugated Pipes for Sewerage System

Nowadays, urban sewage system is being developed with the aim of improving public health and the development of sewage and wastewater treatment industry in advanced countries. In line with this goal, the use of new techniques in urban sewage and wastewater transportation is a simpler and cost effective method for fluid transmission.

In line with technological progress in this industry Gazlouleh company produced and supplied the double wall corrugated pipes for sewerage system in different sizes and classes according to ISO 2118-3, DIN 16961-1,2 and INSO 9116-3 standards. The specific design of these products is resistant to high external loads of 31.5 KN/M<sup>2</sup>.

The technical specifications of Gazlouleh HDPE double wall sewerage pipes are as shown in Table 3.

Outer Diameter (mm)	Minimum Mean Inside Diameters (mm)	Minimum Joints Layer Thickness (mm)	Minimum Inner Layer Thickness (mm)	Minimum Jointing Length (mm)
DN / ID	$d_{in,min}$	$e_{4,min}$	$e_{5,min}$	$A_{min}$
200	195	1.5	1.1	54
250	245	1.8	1.5	59
315	309	2.1	1.8	66
400	392	2.5	2.3	74
500	490	3.0	3.0	85
600	588	3.5	3.5	96
700	687	4.0	4.0	107
850	835	4.7	4.7	124
1000	985	5.0	5.0	140

## Double Wall Sewerage Fittings

For easy to connect and resistant to pressure and corrosion as well as the rapid installation and implementation of double wall corrugated pipes for sewerage systems, a variety of polyethylene pipes connection including three-way, elbows, coupler, O-ring and manhole are produced and supplied by Gazlouleh company according to INSO 9116 - 3, ISO 2118 - 3 and DIN 16961 - 1, 2 standards.





## Quality Control and Laboratory Precision Test

Quality control and inspection tests are carried out in accordance with the latest international and national standards on the raw materials and products produced by the Gazlouleh manufacturing Co. as follows:

- Melt mass- flow rate (ISO 1133-1 / INSO 6980-1)
- Determination of density (ISO 1183-1 / INSO 7090-1)
- Determination of carbon content (ISO 6964 / INSO 1990)
- Tensile Test (ISO 6259-1,3 / INSO 17140-1,3)
- Hydrostatic Test (ISO 1167-1,2 / ISIRI 12181-1,2)
- Burst Test (ASTM D1599)
- Heat Reversion Test (ISO 2505 / INSO 17614)
- Dimension Control Test (ISO 3126 / INSO 1214)
- O.I.T Test (ISO 11357-6 / INSO 7186-6)
- Squeeze-off Test (EN 12106)
- S.C.G Test (ISO 13479)
- R.C.P Test (ISO 13477)
- Falling Weight Test (INSO 22996 / BS EN ISO 3127)
- Carbon Dispersion Test (ISO 18553 / INSO 20059)
- Water-jetting Test (WIS4-35-01)
- Water-tightness Test (INSO 22997 / BS EN ISO 13254)
- Shore A Hardness Scale (DIN 53505)
- Short -Term Pipe Ring Stiffness Test (ISO 9969 / ISIRI 11436)
- Long -Term Pipe Ring Stiffness Test (DIN 16961-2)
- Ring Flexibility Test (ISO 13968 / ISIRI 12190)





## International and National Standards and Certifications

It is a great honor for Gazlouleh Co. to rank number one among all qualified producers of PE gas pipes in national Iranian gas company ranking and to have the following certifications:

- Grade A of Iranian Association of PE pipe & fittings producers
- Quality Management System Standard, ISO9001:2015
- Occupational Health and Safety Management System Standard (ISO 45001:2018)
- Environmental Management System Standard, ISO 14001:2015
- General requirements for the competence to carry out tests and/or calibrations, ISO/IEC 17025
- Food and Drug Administration of Iran Approval
- The Institute of Standards and Industrial Research of Iran Approval for production of HDPE gas pipes, drip irrigation pipes and underground water supply pipes.




## General Specifications of Gazlouleh Manufacturing Products

- High resistance to fracture and cracking
- High chemical resistance
- High resistance to ultraviolet and infrared radiations
- High corrosion resistance
- Very high and low temperature resistance
- High flexibility
- Laying in rugged terrain
- High abrasion resistance
- Easy connection
- Lightness and long lifetime
- Quick installation and implementation
- High impact and pressure resistance
- Rust resistant
- Earthquake resistant





## After-sales Service Support

- Customer satisfaction and meeting customer expectations are the most important missions of Gazlouleh manufacturing company, in line with supplying the high quality products;
  - After-sales services are offered by Gazlouleh for customers to reassure them for more efficient and desirable utilization of company's products;
  - Customer service is offered to customers during and after a purchase;
  - The company is relying on integrated management system (IMS) as well as quality control over all stages of purchase, production, packaging, and transportation and the quality of all products based on international standards;
  - Accurate implementation of production schedule and on time delivery to customers according to contracts;
  - Provide a detailed report of the conducted tests on the materials and products according to the customer's request;
  - Provide the possibility of customers visiting from the production, control and factory inspection processes of productions process;
  - Provide technical information and organizing training meeting about the right choice of the type of raw materials and the production process;
  - Installing and operating pipes and fittings as well as training customers how to test the installed pipes.
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# Certifications











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