

Exodura HDPE Pipes

Municipal Sewage
Rainwater Discharge
Floodwater Drainage
Irrigation Ventilation
Industrial Waste Discharge



Structured Wall Plastic Pipe and Fittings



Company Profile

Exodura Overview

With the increasing market presence of Thermovar due to its proven quality, it has expanded its line to offering new product alternatives such as large diameter sewage and drainage – EXODURA HDPE Pipes for site development for subdivisions and municipalities, and industrial applications.

Quality Assurance

- Exodura - passed the certifications of ISO9001 Quality Management System, ISO 14001 Environment Management System and OHSAS 18001 Occupational Health and Safety
- Exodura - products passed the certificate of NSF, CSA and SAI.
- Exodura - plastic pipes and fittings were awarded China Top Brand.
- Exodura - L & S brand was recognized as a China Famous Brand.
- Exodura - Inspection Center has gained the Accreditation Board for Laboratories (CNAL).



Superior Customer Service

Exodura attaches great importance to pre-sale service, in-sale service and after-sale service, providing the flexible and best solution to satisfy the various needs of our customers with utmost priority and improving customer service with innovation.



Structured Wall Plastic Pipe and Fittings

- Exodura Structured Wall Plastic Pipe and Fittings are widely used in municipal sewage, rainwater discharge, floodwaters drainage, irrigations, ventilation for mine and buildings, industrial waste discharge and communication protecting. They are produced according to the strict quality management system and have superior properties.
- High strength: good compressive resistance and impact resistance.
- Differential Settlement Resistance: low requirements for foundation treatment, suitable for soft soil or quicksand foundation.
- High Flow Capacity: smooth internal walls and low Friction result to low flow resistance and high volume.
- Corrosion Resistance: resistant to sewage, waste water, chemicals and putrilage in soil.
- Convenient installation: lightweight, easy to transport and install, pipe burying only needs ditcher instead of large equipment, shortens time limit and cuts cost.



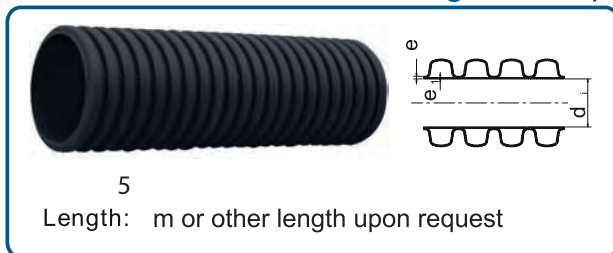
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HDPE Double-Wall Corrugated Pipe

- **Material:** High Density Polyethylene
- **Size:** 110mm to 800mm
- **Ring Stiffness:** SN4 and SN8
- **Color:** black or other colors upon request
- **Standard:** BS EN13476-2:2007、BS EN13476-3:2007+A1:2009, GB/T19472-1
- **Application:** municipal sewage, rainwater discharge, floodwaters drainage, irrigation, ventilation for mine and buildings, industrial waste discharge

HDPE Double-Wall Corrugated Pipe (Plain End)



SN4 ($\geq 4\text{kN/m}^2$)		SN8 ($\geq 8\text{kN/m}^2$)	
SAP Number (5.8m)	Outside Diameter (mm)	SAP Number (5.8m)	Outside Diameter (mm)
8020030368	110	8020030402	110
8020030374	160	8020030407	160

Rubber Ring	
SAP Number	Size (mm)
8020040257	110
8020040258	160

Coupling	
SAP Number	Size (mm)
8020040055	110
8020040056	160

SN4 ($\geq 4\text{kN/m}^2$)		SN8 ($\geq 8\text{kN/m}^2$)	
SAP Number (5.8m)	Inside Diameter (mm)	SAP Number (5.8m)	Inside Diameter (mm)
8020030378	225	8020030413	225
8020030382	300	8020030418	300
8020030386	400	8070040009	400
8020030391	500	8020031330	500
8020030394	600		600
	700		700
8020030398	800		800

Rubber Ring	
SAP Number	Size (mm)
8020040260	225
8020040262	300
8020040264	400
8020040265	500
8020040266	600
8020040512	700
8020040267	800

Coupling	
SAP Number	Size (mm)
8020040057	225
8020040058	300
8020040059	400
8020040060	500
8020040064	600
	700
8020040065	800

HDPE Double-Wall Corrugated Pipe (Socket End)



SN4 ($\geq 4\text{kN/m}^2$)		Sn8 ($\geq 8\text{kN/m}^2$)	
SAP Number (5.8m)	Inside Diameter (mm)	SAP Number (5.8m)	Inside Diameter (mm)
8020030016	225	8020031227	225
8020031334	300	8020031228	300
8020031462	400	8020031229	400
8020031413	500	8020031230	500
8020031499	600	8020031231	600
	800	8020031443	800

Rubber Ring	
SAP Number	Size (mm)
8020040250	225
8020040251	300
8020040252	400
8020040253	500
8020040254	600
8020040256	800

Note: SN is Nominal Ring Stiffness, which reflects the ability of a pipe to resist deformation due to an external load. Stiffness classes are identified by an SN number where a higher number indicates greater resistance to deflection.

HDPE Double-Wall Corrugated Pipe Fittings (Fabricated Fittings)

45° Elbow



SAP Number	Size (mm)
8020040315	160
8020040109	225
8020040110	300
8020040111	400
8020040112	500
8020040113	600
8020040114	800

*45° Elbow and other elbow upon the request

90° Elbow



SAP Number	Size (mm)
8020040084	160
8020040085	225
8020040086	300
8020040087	400
8020040088	500
8020040089	600
8020040090	800

Tee



SAP Number	Size (mm)
8020040202	160
8020040203	225
8020040204	300
8020040205	400
8020040206	500
8020040207	600
8020040208	800

Reducing Tee



SAP Number	Size (mm)
8020040316	160×110
8020040317	225×160
8020040152	300×225
8020040153	400×225
8020040154	400×300
8020040155	500×225
8020040156	500×300
8020040157	500×400
8020040158	600×225
8020040159	600×300
8020040160	600×400
8020040161	600×500
8020040455	800×225
8020040456	800×300
8020040457	800×400
8020040162	800×500
8020040163	800×600

Cross



SAP Number	Size (mm)
8020040209	225
8020040210	300
8020040211	400
8020040212	500
	600
	800

Reducing Cross



SAP Number	Size (mm)
8020040183	300×225
8020040478	400×225
8020040184	400×300
8020040479	500×225
8020040480	500×300
8020040185	500×400
8020040481	600×225
8020040482	600×300
8020040186	600×400
8020040483	600×500
8020040484	800×225
8020040485	800×300
8020040486	800×400
8020040487	800×500
8020040488	800×600

Reducer



SAP Number (Homocentric)	SAP Number (Eccentric)	Size (mm)
8020040240	8020040247	300×225
8020040241	8020040500	400×225
8020040242	8020040501	400×300
8020040492	8020040502	500×225
8020040243	8020040503	500×300
8020040244	8020040248	500×400
8020040493	8020040504	600×225
8020040494	8020040505	600×300
8020040495	8020040506	600×400
8020040245	8020040249	600×500
8020040496	8020040507	800×225
8020040497	8020040508	800×300
8020040498	8020040509	800×400
8020040499	8020040510	800×500
8020040246	8020040511	800×600

Tensioner



SAP Number	Size
8020020274	2t
8020020275	3t

HDPE Double-Wall Corrugated Pipe Fittings (Injection Molded Fittings)

45° Elbow



SAP Number	Size (mm)
8020040108	110

Tee



SAP Number	Size (mm)
8020040201	110

90° Elbow



SAP Number	Size (mm)
8020040083	110

45° Wye



SAP Number	Size (mm)
8020040234	110

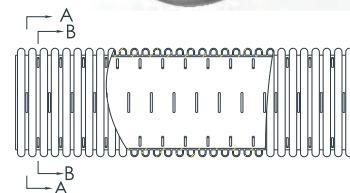
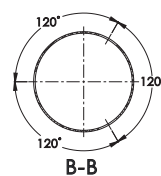
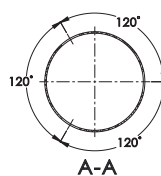
Plug



SAP Number	Size (mm)
8020040238	110

HDPE Double-Wall Corrugated Pipe--Infiltration Pipe

Length: 6m or other length upon request

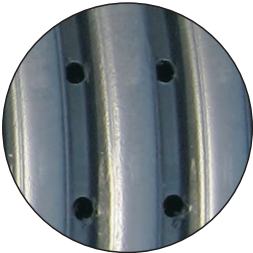


SN4 ($\geq 4\text{kN/m}^2$)			SN8 ($\geq 8\text{kN/m}^2$)		
SAP Number (6m)	Size (mm)	Number of Slotting Row	SAP Number (6m)	Size (mm)	Number of Slotting Row
8020030703	110	6 rows	8020030188	110	6 rows

Illustration: $\Phi 110$ groove width is 1.5mm; the length of the groove is united as 20mm, the tolerance is around $\pm 5\text{mm}$, specific dimensions can be produced upon request.

HDPE Double-wall Corrugated Holing Pipe

Length: 5.8m or other length upon request



SN4 (≥4kN/m²)		
SAP Number (5.8m)	Outside Diameter (mm)	Number of Holing Row
	160	7 rows

SN4 (≥4kN/m²)		
SAP Number (5.8m)	Inside Diameter (mm)	Number of Holing Row
	225	8 rows
	300	9 rows

SN8 (≥8kN/m²)		
SAP Number (5.8m)	Outside Diameter (mm)	Number of Holing Row
	160	7 rows

SN8 (≥8kN/m²)		
SAP Number (5.8m)	Inside Diameter (mm)	Number of Holing Row
	225	8 rows
8020030442	300	9 rows

HDPE Spiral Enhanced Pipe

- ◉ **Material:** High Density Polyethylene
- ◉ **Size:** 200mm to 2400mm
- ◉ **Ring Stiffness:** SN4, SN8 and SN12.5
- ◉ **Color:** black or other colors upon request.
- ◉ **Length:** 6m, 11.8m or other length upon request.
- ◉ **Standard:** BS EN13476-2:2007, BS EN13476-3:2007+A1:2009, GB/T19472-1
- ◉ **Application:** municipal sewage, rainwater discharge, floodwaters drainage, irrigation, ventilation for mine and buildings, industrial waste discharge and communication protecting.
- ◉ **Specification 520 is non-standard product.**

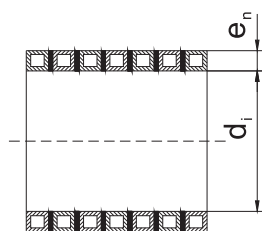


SN4 ($\geq 4\text{kN/m}^2$)	
SAP Number (6m)	Inside Diameter (mm)
8020030235	200
8020030239	250
8020030243	300
8020030245	350
8020030248	400
8020030250	450
8020030254	500
	520
8020030258	600
8020030261	700
8020030265	800
8020030269	900
8020030218	1000
	1100
8020030866	1200
	1300
8020030870	1400
8020030872	1500
8020030230	1600
	1700
8020030879	1800
	2000
	2200
	2400

SN8 ($\geq 8\text{kN/m}^2$)	
SAP Number (11.8m)	Inside Diameter (mm)
	200
	250
	300
	350
	400
	450
	500
	520
	600
8020030952	700
	800
8020030319	900
8020030902	1000
8020030274	1100
8020030908	1200
8020030916	1300
8020030917	1400
8020030919	1500
8020030285	1600
	1700
8020030287	1800
	2000
	2200

SN12.5 ($\geq 12.5\text{kN/m}^2$)	
SAP Number (11.8m)	Inside Diameter (mm)
	200
	250
8020031295	300
	350
8020031294	400
	450
	500
	520
	600
8020030863	700
	800
8020030864	900
	1000
8020030848	1100
	1200
	1300

SAP Number (6m)	Inside Diameter (mm)
	200
	250
8020031090	300
	350
	400
	450
	500
8020031103	600
	700
8020031108	800
	900
	1000



HDPE Spiral Enhanced Pipe (for HDD)

HDD: Horizontal Directional Drilling



HDPE Spiral Enhanced Pipe Fittings

45° Elbow



* 45° Elbow and other elbow upon the request

90° Elbow



Tee



Reducing Tee



SN4 ($\geq 4\text{kN/m}^2$)		SN8 ($\geq 8\text{kN/m}^2$)	
SAP Number	Size (mm)	SAP Number	Size (mm)
8020040091	200	8020040099	200
8020040092	250	8020040100	250
8020040093	300	8020040101	300
8020040094	350	8020040102	350
8020040095	400	8020040103	400
8020040429	450	8020040431	450
8020040096	500	8020040104	500
8020040430	600	8020040105	600
8020040097	700	8020040106	700
8020040098	800	8020040432	800
	900	8020040107	900
8020040319	1000		

SN4 ($\geq 4\text{kN/m}^2$)		SN8 ($\geq 8\text{kN/m}^2$)	
SAP Number	Size (mm)	SAP Number	Size (mm)
8020040067	200	8020040076	200
8020040068	250	8020040077	250
8020040069	300	8020040078	300
8020040070	350	8020040079	350
8020040071	400	8020040080	400
8020040072	450		450
8020040073	500	8020040081	500
8020040074	600	8020040082	600
8020040433	700	8020040436	700
8020040075	800	8020040437	800
8020040434	900	8020040624	900
8020040318	1000	8020040435	1000

SN4 ($\geq 4\text{kN/m}^2$)		SN8 ($\geq 8\text{kN/m}^2$)	
SAP Number	Size (mm)	SAP Number	Size (mm)
8020040187	200	8020040194	200
8020040489	250	8020040195	250
8020040188	300	8020040196	300
8020040189	350	8020040197	350
8020040190	400	8020040198	400
8020040191	450	8020040490	450
8020040192	500	8020040199	500
8020040193	600	8020040200	600

SN4 ($\geq 4\text{kN/m}^2$)		SN8 ($\geq 8\text{kN/m}^2$)	
SAP Number	Size (mm)	SAP Number	Size (mm)
8020040439	250×200	8020040137	250×200
8020040119	300×200	8020040138	300×200
8020040120	300×250	8020040139	300×250
8020040121	350×200	8020040140	350×200
8020040122	350×250	8020040141	350×250
8020040123	350×300		350×300
8020040124	400×200	8020040441	400×200
8020040125	400×250	8020040142	400×250
8020040126	400×300	8020040143	400×300

HDPE Spiral Enhanced Pipe and Fittings

Reducing Tee

Continued



SN4 ($\geq 4\text{kN/m}^2$)		SN8 ($\geq 8\text{kN/m}^2$)	
SAP Number	Size (mm)	SAP Number	Size (mm)
8020040127	400×350	8020040144	400×350
	450×200	8020040442	450×200
	450×250	8020040443	450×250
8020040128	450×300	8020040444	450×300
	450×350	8020040145	450×350
	450×400	8020040445	450×400
8020040129	500×200	8020040146	500×200
8020040130	500×250	8020040147	500×250
8020040131	500×300	8020040148	500×300
8020040132	500×350	8020040149	500×350
8020040133	500×400	8020040446	500×400
	500×450	8020040447	500×450
8020040440	600×200	8020040448	600×200
	600×250	8020040449	600×250
	600×300	8020040150	600×300
	600×350	8020040450	600×350
8020040134	600×400	8020040451	600×400
	600×450	8020040151	600×450
8020040135	600×500	8020040452	600×500
		8020040453	800×200
		8020040454	800×400

Reducing Cross



SN4 ($\geq 4\text{kN/m}^2$)		SN8 ($\geq 8\text{kN/m}^2$)	
SAP Number	Size (mm)	SAP Number	Size (mm)
8020040164	250×200	8020040176	250×200
8020040165	300×200	8020040177	300×200
8020040166	300×250	8020040178	300×250
8020040167	350×200	8020040179	350×200
	350×250	8020040466	350×250
			350×300
8020040168	350×300	8020040467	400×200
8020040169	400×200	8020040180	400×250
8020040170	400×250	8020040468	400×300
8020040458	400×300	8020040181	400×350
8020040171	400×350	8020040469	450×200
	450×200	8020040470	450×250
	450×250	8020040471	450×300
	450×300	8020040472	450×350
	450×350	8020040473	450×400
	450×400	8020040474	500×200
	500×200	8020040182	500×250
8020040172	500×250		500×300
8020040459	500×300		500×350
	500×350	8020040475	500×350
	500×400	8020040476	500×400
	500×450	8020040477	500×450
8020040173	600×200	8020040640	600×200
8020040174	600×250		600×250
8020040175	600×300		600×300
8020040460	600×350		600×350
8020040461	600×400		600×400
8020040462	600×450		600×450
8020040463	600×500		600×500
8020040464	700×250		700×250
8020040465	900×300		900×300

HDPE Spiral Enhanced Pipe and Fittings

Electro Fusion Belt
(with PE rod)



SAP Number	Size (mm)
8020040309	200
8020040025	300
8020040026	350
8020040027	400
8020040028	450
8020040029	500
8020040030	600
8020040031	700
8020040032	800
8020040033	900
8020040016	1000
8020040017	1100
8020040018	1200
8020040019	1300
8020040020	1400
8020040021	1500
8020040022	1600
8020040023	1800
8020040015	2000
8020040024	2200

Leakage-Proof Rubber Ring



SAP Number	Size (mm)
8020040223	200
8020040224	250
8020040225	300
8020040226	350
8020040227	400
8020040228	450
8020040229	500
8020040230	600
8020040231	700
8020040232	800
8020040233	900
8020040215	1000
8020040216	1100
8020040217	1200
8020040218	1300
8020040219	1400
8020040220	1500
8020040221	1600
8020040222	1800
8020040214	2000
8020040491	2200

Modified Electro Fusion
Belt for HDD (with PE rod)



SAP Number	Size (mm)
8020040320	200
8020040569	250
8020040570	300
8020040571	350
8020040572	400
8020040573	450
8020040574	500
8020040575	600
8020040576	700
8020040577	800
8020040578	900
8020040568	1000

Shrinkage Belt



SAP Number	Size (mm)
8020040034	200
8020040035	250
8020040036	300
8020040037	350
8020040038	400
8020040039	450
8020040040	500
8020040041	600
8020040042	700
8020040043	800
8020040424	1000
8020040426	1500

Electro Fusion Belt for HDD
(with PE rod)



SAP Number	Size (mm)
8020040277	200
8020040547	250
8020040278	300
8020040279	350
8020040280	400
8020040548	450
8020040281	500
8020040282	600
8020040283	700
8020040284	800
8020040549	900
8020040276	1000

HDPE Weights

HDPE Spiral Enhanced Pipe

Specification	Small Pipe size (mm)	Stiffness (KN/m ²)	(kg/m) weight
200	12 x 1.4	4	3.5
250	12 x 1.4	4	4.5
300	14 x 1.5	4	6.2
350	19 x 1.8	4	8.5
400	22 x 2	4	10
450	25 x 2.1	4	11
500	25 x 2.3	4	14.5
600	31 x 2.8	4	22.5
700	39 x 3.1	4	28.4
800	44 x 3.5	4	35.7
900	44 x 3.2	4	42
1000	50 x 3.9	4	52.5
1100	56 x 4.2	4	62
1200	62 x 5.0	4	83.2
1300	68 x 5.4	4	94.5
1400	75 x 6.0	4	105
1500	81 x 6.5	4	125.8
1600	81 x 6.8	4	140
1800	81 x 7.0	4	175
2000	86 x 9.5	4	230
200	12 x 1.5	8	4.5
250	14 x 1.7	8	6.5
300	19 x 1.9	8	8.5
350	25 x 2.3	8	11.5
400	25 x 2.5	8	15
450	31 x 2.6	8	18
500	31 x 3.0	8	21.5
600	39 x 3.3	8	31
700	44 x 4.2	8	45
800	50 x 4.8	8	52
900	56 x 5.5	8	72
1000	62 x 5.5	8	78
1100	75 x 7.0	8	96.5
1200	81 x 7.3	8	110
1300	81 x 7.3	8	131
1400	88 x 7.5	8	145
1500	95 x 9.2	8	180
1600	102 x 9.5	8	220
1800	102 x 10.0	8	280
2000	115 x 11.5	8	338

HDPE Weights

HDPE Spiral Enhanced Pipe

Specification	Small Pipe size (mm)	Stiffness (KN/m ²)	(kg/m) weight
200	14 x 2	12	-
250	15 x 2.1	12	-
300	19 x 2.4	12	13
350	22 x 2.9	12	-
400	25 x 3.6	12	22
450	29 x 3.6	12	-
500	31 x 4.4	12	28.5
600	39 x 4.4	12	47
700	44 x 5.6	12	-
800	50 x 6.3	12	80
900	56 x 7	12	-
1000	62 x 8.1	12	116
1100	68 x 9	12	-
1200	75 x 9.5	12	-
1300	81 x 10.2	12	-
1400	88 x 10.8	12	-
1500	95 x 11.2	12	-
1600	102 x 12.6	12	270
1800	115 x 14.5	12	-
2000		12	-

HDPE Spiral Enhanced Pipe (HDD)

Specification	Small Pipe size (mm)	Stiffness (KN/m ²)	(kg/m) weight
200	14 x 2	12.5	-
250	15 x 2.1	12.5	-
300	19 x 2.4	12.5	11
350	22 x 2.9	12.5	-
400	25 x 3.6	12.5	17
450	29 x 3.6	12.5	-
500	31 x 4.4	12.5	-
600	39 x 4.4	12.5	-
700	44 x 5.6	12.5	-
800	50 x 6.3	12.5	-
900	56 x 7	12.5	-
1000	62 x 8.1	12.5	-

HDPE Weights

HDPE DOUBLE WALL CORRUGATED PIPE

Specification	Stiffness (KN/m ²)	(kg/m) weight
110	4	0.72
160	4	1.25
225	4	2.8
300	4	4.8
400	4	7.9
500	4	10.5
600	4	16
800	4	30
110 OD	8	0.79
160 OD	8	1.55
225	8	4.5
300	8	8.5
400	8	13
500	8	20
600	8	27
800	8	43

Coupler

Specification	(kg/m) weight
110	0.21
160	0.44
225	1.12
300	1.5
400	3.8
500	...
600	...
800	...

HDPE Weights

HDPE

Specification	Stiffness (KN/m ²)	(kg/m) weight
225	4	2.8
300	4	4.8
400	4	7.9
500	4	10.5
600	4	16
800	4	30
225	8	4.5
300	8	8.5
400	8	13
500	8	20
600	8	27
800	8	43

SPIRAL CORRUGATED PIPE

Specification	Stiffness (kN/m ²)	(kg/m) weight
600	SN4	19
700	SN4	31.8
800	SN4	38.4
900	SN4	46
1000	SN4	56.8
1100	SN4	60
1200	SN4	63.7
1300	SN4	94
1400	SN4	105
1500	SN4	-
600	SN8	27
700	SN8	37
800	SN8	48.5
900	SN8	58
1000	SN8	78
1100	SN8	86
1200	SN8	104
1300	SN8	108
1400	SN8	138
1500	SN8	153
1600	SN8	188

Certifications

BV certification for structured-wall piping systems PVC-U, HDPE pipes and fittings comply with BS EN 13476-2, ISO 21138-2, BS EN 13476-3, ISO 21138-3.


BUREAU VERITAS

TYPE APPROVAL CERTIFICATE

Certificate No.: **TA-INS/S-GZ-14/021**

Name of the Company: **Guangdong Liansu Technology Industrial Co., Ltd.**
Address of the factory: **Liansu Industrial Estate, Longjiang Town, Shunde Zone, Foshan City, Guangdong, P. R. China**

Type(s) of pipe & fitting manufactured: **Structured-wall piping systems PVC-U, HDPE pipes and fittings, Type A & Type B**

Applying Standards: **BS EN 13476-2:2007, ISO 21138-2:2007, BS EN 13476-3:2007+A1:2009, ISO 21138-3:2007**

Drawing Number: **SN4, SN8**
Service Pressure: **DN/OD 110-1200 mm, DN / ID 100-1200 mm**

After examination of the following documents:
Test reports for type approval n° **TR-INS/S-GZ-14/021** dated Aug. 15th, 2014

The undersigned, Inspector to Bureau Veritas, certifies that the above type meets the applicable requirements for the type approval of pipe & fitting listed above.

This approval remains valid as long as no significant changes are made to the facility, its production rate and its quality system. These conditions are assessed during each inspection of series.

This approval is an integral and indissociable part of the certification process managed by Bureau Veritas as defined in BV procedure GM SI 210.

Made at: Shanghai Name & signature: 
On: Aug 15th, 2014 BV China INS Department Director

Bureau Veritas Greater China, Industry and Facility Division
Address: 3/F, No. 1288, Wai Ma Road, Huangpu District, Shanghai, 200011, P. R. China
Tel: +86 21 2319 0001, 2319 0002, 2319 0003 Fax: +86 21 68861421


BUREAU VERITAS

FACTORY APPROVAL CERTIFICATE

Certificate No.: **FA-INS/S-GZ-14/021**

Name of the Factory: **Guangdong Liansu Technology Industrial Co., Ltd.**
Address of the Factory: **Liansu Industrial Estate, Longjiang Town, Shunde Zone, Foshan City, Guangdong, P. R. China**

Type(s) of product manufactured: **Structured-wall piping systems PVC-U, HDPE pipes and fittings, Type A & Type B**

Applying standards: **BS EN 13476-2:2007, ISO 21138-2:2007, BS EN 13476-3:2007+A1:2009, ISO 21138-3:2007**

After examination of the following documents:
- Quality System Certificate n° (ISO 9001:2008), 0070012Q11710R4L (2012-08-21 to 2015-08-20)
- Factory Audit Report n° **FR-INS/S-GZ-14/021**
- Test Reports for Type Approval n° **TR-INS/S-GZ-14/021**

The undersigned, Inspector of Bureau Veritas, certifies that the above factory meets the applicable requirements of BV procedure GM SI 210 for the production of the following types of pipes & fittings listed in **Annex to Certificate**.

This certificate is valid from **Aug. 15th, 2014**
For a period of three years, ending **Aug. 14th, 2017**

This approval is only valid provided that every semi-annual audit (in annex) is done and found satisfactory by Bureau Veritas, and when no significant changes are made to the audited facility, its production rate and its quality system. These conditions will be assessed during semi-annual audits.

This approval is an integral and indissociable part of the voluntary certification process of pipes & fittings by Bureau Veritas as defined in BV procedure GM SI 210.

Made at: Shanghai Name & signature: 
On: Aug. 15th, 2014 BV China INS Department Director

Bureau Veritas Greater China, Industry and Facility Division
Address: 3/F, No. 1288, Wai Ma Road, Huangpu District, Shanghai, 200011, P. R. China
Tel: +86 21 2319 0001, 2319 0002, 2319 0003 Fax: +86 21 68861421


BUREAU VERITAS

ANNEX TO CERTIFICATE No. FA-INS/S-GZ-14/021

1. Name of the Company: **Guangdong Liansu Technology Industrial Co., Ltd.**
2. Address of the factory: **Liansu Industrial Estate, Longjiang Town, Shunde Zone, Foshan City, Guangdong, P. R. China**
3. Applying standards: **BS EN 13476-2:2007, ISO 21138-2:2007, BS EN 13476-3:2007+A1:2009, ISO 21138-3:2007**

Type of Product: **Structured-wall piping systems PVC-U, HDPE pipes and fittings, Type A & Type B**
Drawing Number: **1**
Service Pressure: **SN4, SN8**
DN: **DN/OD 110 - 1200 mm, DN / ID 100 - 1200 mm**

• Satisfactory audit of the above mentioned factory and issuance of the references report as per the Factory Approval Certificate.

This certificate is valid for 3 years (until Aug. 14th, 2017), providing that the semi-annual surveillance visits made by the society are satisfactory. After that period it shall be renewed in accordance with the Bureau Veritas Rules.

1 st Year Period:		2 nd Year Period:		3 rd Year Period:	
08/15/2014-02/14/2015	02/15/2015-08/14/2015	08/15/2015-02/14/2016	02/15/2016-08/14/2016	08/15/2016-02/14/2017	02/15/2017-08/14/2017
Sign & Stamp:	Sign & Stamp:	Sign & Stamp:	Sign & Stamp:	Sign & Stamp:	Sign & Stamp:

1828

This inspection has been carried out within the scope of Bureau Veritas General Conditions; it does not release the seller from his contractual obligations towards the buyer.

Bureau Veritas Greater China, Industry and Facility Division
Address: 3/F, No. 1288, Wai Ma Road, Huangpu District, Shanghai, 200011, P. R. China
Tel: +86 21 2319 0001, 2319 0002, 2319 0003 Fax: +86 21 68861421

CE certification for structured-wall plastic pipes and fittings
comply with EN 13476-1, EN 13476-2, EN 13476-3, ISO 21138-1, ISO 21138-2, ISO 21138-3.

شهادة – 증명서 – 證明書 – Сертификат – Certifi

Verification of Compliance



No. EC.1282.0B140121.GLT0354

Certificate's Holder: Guangdong Liansu Technology Industrial Co., Ltd.
Liansu Industrial Estate, Longjiang Town, Shunde Zone,
Foshan City, Guangdong Province, China

Product: Structured Wall Plastic Pipes and Fittings
Model(s): DN110-1200mm

Directives: R 305/2011 Regulation for the Marketing of
Construction Products

Standards: EN 13476-1:2007, EN 13476-2:2007,
EN 13476-3:2007+A1:2009, ISO 21138-1:2007,
ISO 21138-2:2007, ISO 21138-3:2007

Remark: This Verification of Compliance has been issued on a voluntary basis. ECM confirms that a Technical Construction File (TCF) is existent for the above listed product(s). The TCF satisfactorily covers the essential requirements of the above listed Directive(s). Other relevant Directives have to be observed in case they are applicable. This Document is only valid for the equipment and configuration described and in conjunction with the TCF detailed above. Whereas the Manufacturer is responsible of the certification of the product(s) and not exempted to perform all the necessary activities before placing the product(s) on the market. The Manufacturer is also responsible of the internal production control to ensure the product(s) are in compliance with the essential requirements of the above mentioned Directive(s). This certificate can be checked for validity at www.entecerma.org

Date of issue JANUARY 2014

Certification Chief Manager

Tim Mahan



Expiry date JANUARY 2019

Certification Deputy Manager

Viola Miller



Ente Certificazione Macchine Srl

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Project Reference

Project Name

Home for the Elderly
Maynilad
Central Avenue Lodging and Parsonage
Manila Polo Club
Sagana Homes
EVM Convention Center
Iglesia ni Cristo CEM Building
Iglesia ni Cristo College of Evangelical Ministry
Iglesia ni Cristo Minister's Condominium
Iglesia ni Cristo
Iglesia ni Cristo
Main Gate, Central Avenue
UP North Science and Technology Park
Philippine Bible Seminary Floodwater Drainage
UPD Institute of Civil Engineering Building
Purefoods Nugget Line
Solaire Manila
The Groove Rockwell
UP College of Arts and Science
Philippine Arena
Redondo Peninsula Energy Inc
Pagbilao Power Plant
Amaia Shaw
Boracay Beach Resort

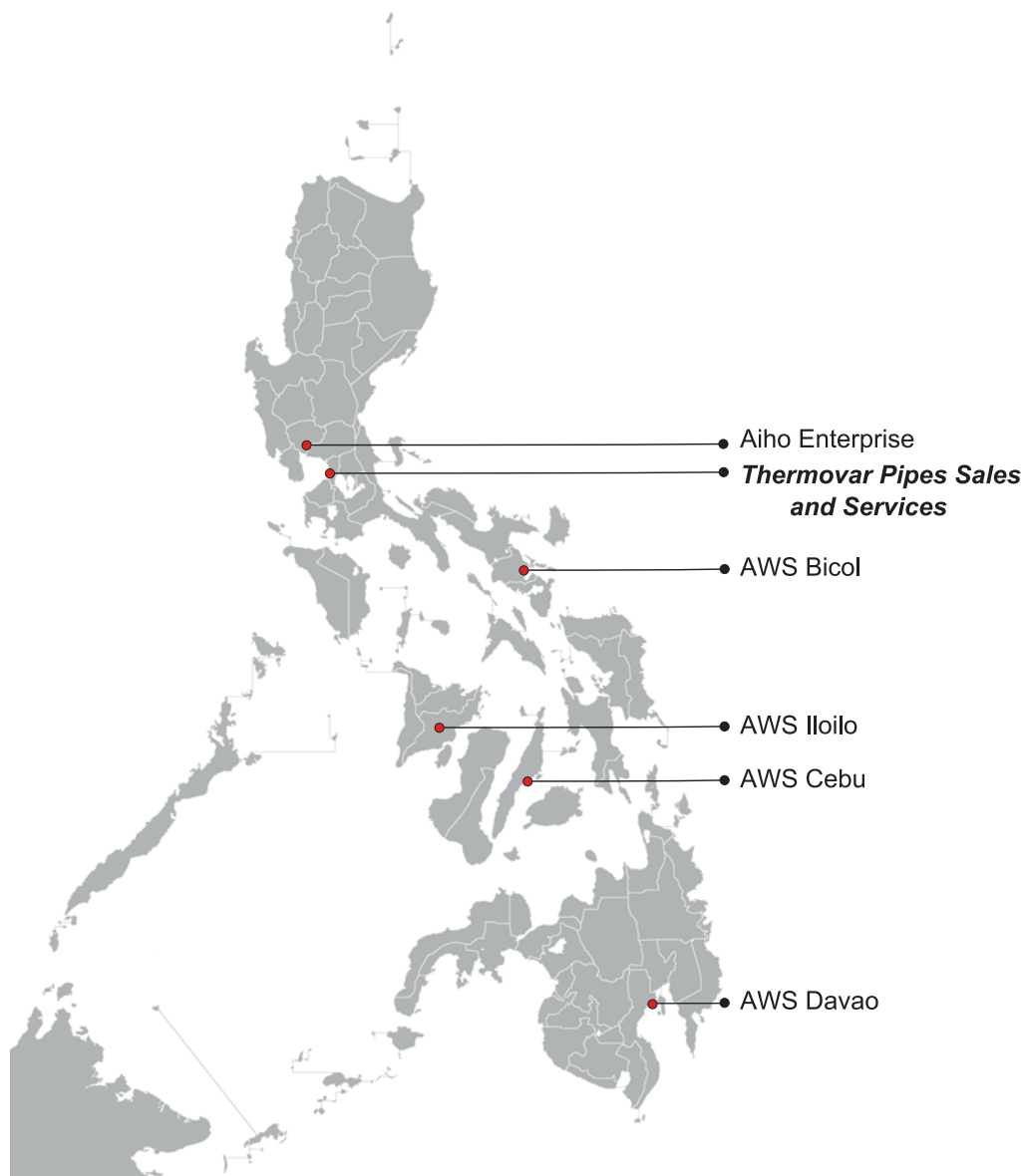
Location

Bulacan
Caloocan
Quezon City
Makati City
Quezon City
Quezon City
Quezon City
Quezon City
Quezon City
Simuna, Cagayan South
Baruya, Pampanga
Diliman, Quezon City
Quezon City

Diliman, Quezon City

Asca Ave., Paranaque
Pasig
Ermita Manila
Bocaue, Bulacan
Subic, Zambales
Pagbilao, Quezon Province
Samat, Mandaluyong
Boracay

Distributors/ Networks


**ThermoVAR Pipes
Sales and Services**

28- A Victoria Villas, M. Cuenco Street,
Sta. Mesa Heights, Quezon City
T: 741-5889
F: 712-2213
E: info@thermovar.com

Aiho Enterprise

1348 Miranda Extension,
Angeles City, Pampanga
T: 045.887.1764
F: 045.887.1764
E: aiho@amici.com.ph

**Amici Water Systems
Sales and Service Bicol**

Door 3-4, D & N Building,
Washington Drive, Legazpi City, Albay
T: 052.481.1277
E: bicol@amiciwatersystems.com

**Amici Water Systems
Sales and Services Iloilo**

Door B-1 Quezon Street,
Brgy. Sampaguita, Iloilo City
T: 033.333.1094
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**Amici Water Systems
Sales and Services Cebu**

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F: 032.344.5400
E: cebu@amiciwatersystems.com

**Amici Water Systems
Sales and Services Davao**

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F: 082.282.2900
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