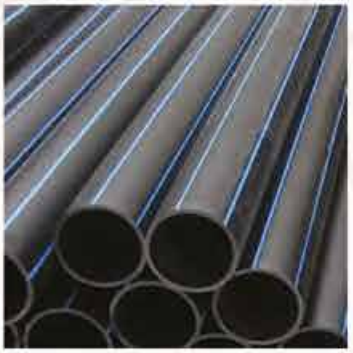
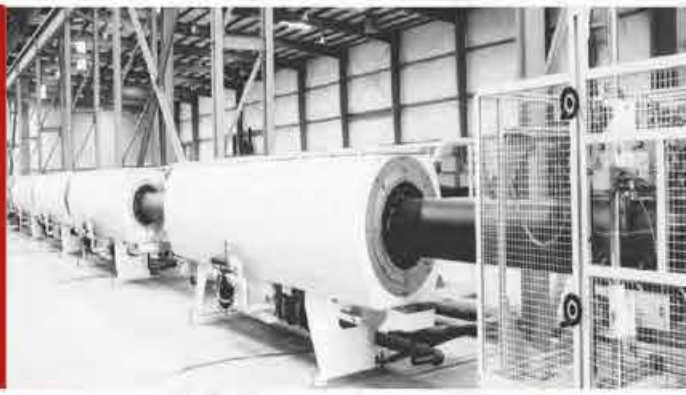
ajpipe
modern pipe technology





Abuljadayel Factory For GRP & PE Pipes
مصنع أبوالجدايل لمواسير الفيبرجلاس والبولي إثيلين



ajpipe modern pipe technology

TABLE OF CONTENTS

1. **Introduction**

2. **ISO Certificate, Organization chart**

3. **CR , Zakah & Income certificates.**

4. **ajpipe tested at HENZE GmbH of Germany**

5. **Physical, Mechanical, Thermal and Electrical Properties of ajpipe**
   Test Report at HESSEL GmbH of Germany

6. **ajpipe compliance with DIN 8074 & 8075**
   Test Report at Bodycote Polymer of Sweden

7. **WRAS Approval for ajpipe**
   WRAS Approval
   WRAS Directory Reference Number
   aj Factory details at WRAS directory www.wras.co.uk

8. **ajpipe compliance with BS 6920: Part 1: 2000**
   Test Report at Intertek laboratory of UK

9. **Quality Control at ajpipe.**

10. **ajpipe Approvals.**

11. **ajpipe Performance Certificates.**

12. **Industrial license , Chamber Of Commerce, GOSI.**

13. **. ajpipe Brochure.**

ajpipe modern pipe technology

1. INTRODUCTION

ajpipe factory, located in Industrial City of Jeddah, Kingdom of Saudi Arabia, the factory produces high quality of High Density Polyethylene Pipes (HDPE) .The factory is using the most modern German technology in polyethylene pipe industry, and. **ajpipe** has advantages of high resistance for chemical and physical corrosion, long life. **ajpipe** factory has a capacity of 6,000 tons/year.

ajpipe Factory has ISO 9001:2008 certificate, and **ajpipe** are tested in Several third part laboratory as listed in this document, to insure the highest Quality of the HDPE pipes produced.

ajpipe Factory produces HDPE pipes as according to **DIN 8074 & 8075** and **ISO 4427** up to 16 bar pressure lines, ranging from 20 mm to 630 mm OD, PE100 material.

ajpipe used in water supply and sewage projects and pumping mains, its excellent chemical and mechanical properties give an advantage over other kind of pipes.

aj pipe has most modern production lines to supply the following :

- Diameters from 20 mm up to 630 mm as out side diameter
- 12 meter standard pipe length for OD 110 mm up to 630 mm
- **aj pipe** can supply diameters up to 110 mm on coils
- **aj pipe** can supply with all require fittings
- Extruded pipes for pressure application

aj-pipe produces PE (polyethylene) pipes according to DIN 8074 & ISO 4427 as the following :

HDPE PE 100 Pipes – Safety Factor = 1.25 – Water Pipes:

PE 100 HDPE pipe nominal wall thickness according to **DIN 8074**

Series	4		5		6.3		8		10		12.5	
SDR	9		11		13.6		17		21		26	
PN Bar	20		16		12.5		10		8		6.3	
OD	T	W	T	W	T	W	T	W	T	W	T	W
mm	mm	kg/m	mm	kg/m	mm	kg/m	mm	kg/m	mm	kg/m	mm	kg/m
20	2.3	0.133	1.9	0.112	1.8	0.107	-	-	-	-	-	-
25	2.8	0.200	2.3	0.171	1.9	0.144	1.8	0.137	-	-	-	-
32	3.6	0.327	2.9	0.272	2.4	0.232	1.9	0.187	-	-	-	-
40	4.5	0.509	3.7	0.430	3.0	0.356	2.4	0.295	1.9	0.239	1.8	0.227
50	5.6	0.788	4.6	0.666	3.7	0.549	3.0	0.453	2.4	0.374	2.0	0.314
63	7.1	1.26	5.8	1.05	4.7	0.873	3.8	0.721	3.0	0.580	2.5	0.494
75	8.4	1.76	6.8	1.47	5.6	1.24	4.5	1.02	3.6	0.828	2.9	0.675
90	10.1	2.54	8.2	2.12	6.7	1.77	5.4	1.46	4.3	1.18	3.5	0.978
110	12.3	3.78	10.0	3.14	8.1	2.62	6.6	2.17	5.3	1.77	4.2	1.43
125	14	4.87	11.4	4.08	9.2	3.37	7.4	2.76	6.0	2.27	4.8	1.84
140	15.7	6.11	12.7	5.08	10.3	4.22	8.3	3.46	6.7	2.83	5.4	2.32
160	17.9	7.96	14.6	6.67	11.8	5.50	9.5	4.52	7.7	3.72	6.2	3.04
180	20.1	10.1	16.4	8.42	13.3	6.98	10.7	5.71	8.6	4.67	6.9	3.79
200	22.4	12.4	18.2	10.4	14.7	8.56	11.9	7.05	9.6	5.78	7.7	4.69
225	25.2	15.8	20.5	13.1	16.6	10.9	13.4	8.93	10.8	7.30	8.6	5.89
250	27.9	19.4	22.7	16.2	18.4	13.4	14.8	11.0	11.9	8.93	9.6	7.30
280	31.3	24.3	25.4	20.3	20.6	16.8	16.6	13.7	13.4	11.3	10.7	9.10
315	35.2	30.8	28.6	25.6	23.2	21.2	18.7	17.4	15.0	14.2	12.1	11.6
355	39.7	39.1	32.2	32.5	26.1	26.9	21.1	22.1	16.9	18.0	13.6	14.6
400	44.7	49.6	36.3	41.3	29.4	34.1	23.7	28.0	19.1	22.9	15.3	18.6
450	50.3	62.7	40.9	52.3	33.1	43.2	26.7	35.4	21.5	28.9	17.2	23.5
500	55.8	77.3	45.4	64.5	36.8	53.3	29.7	43.8	23.9	35.7	19.1	28.9
560	62.5	97.0	50.8	80.8	41.2	66.9	33.2	54.8	26.7	44.7	21.4	36.2
630	-	-	57.2	102	46.3	84.6	37.4	69.4	30.0	56.4	24.1	45.9

W: Nominal linear weight.
T: Nominal wall thickness.
The weight has been calculated taking the average density as 0.950 g/cm^3

Certificate

Standard **ISO 9001:2015**

Certificate Registr. No. 01 100 1722060

Certificate Holder: **Abuljadayel Factory for GRP & PE Pipes (AJ Pipe)**

P.O. Box 4536, Jeddah 21412,
Kingdom of Saudi Arabia

Scope: Manufacture and Supply of Fiberglass and Polyethylene Pipes and Polyethylene sheets

Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 are met.

Validity: The certificate is valid from 2017-10-24 until 2020-10-23.
First certification 2017

2017-10-25

TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

DAkkS Deutsche Akkreditierungsstelle D-ZM-16031-01-00

www.tuv.com

TÜVRheinland®
Precisely Right.

10/201 4.08 E A4 ® TÜV, TUEV and TUV are registered trademarks. Utilisation and application requires prior approval.

الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

شهادة ترخيص باستعمال علامة الجودة

License For Use of The Quality Mark

License No: ١-٠٠٠٠٠٤٠٣٠١٦٦٧٣١٢٥٧٩٢٤-١٤٣٦-٢/١ رقـــم الترخيص:

SASO certifies that: تشهد الهيئة السعودية للمواصفات والمقاييس والجودة بأنها رخصت

لـ : **مصنع أبوالجدايل لمواسيرالفيبرجلاس والبولي إثيلين**

Address : **جدة - المنطقة الصناعية - المرحلة الخامسة** العنوان :

Grant the right to use SASO quality mark on a following product: باستعمال علامة الجودة على منتجاتها التالية:

أنابيب عديد الإيثيلين لإمداد المياه (PE 100) الصنف (SDR 11) للمقاسات التالية:
(٢٠ ، ٢٥، ٣٢ ، ٤٠ ، ٥٠ ، ٦٣ ، ٧٥ ، ٩٠ ، ١١٠ ، ١٢٥ ، ١٤٠ ، ١٦٠ ، ١٨٠ ، ٢٠٠ ، ٢٢٥ ، ٢٥٠ ، ٢٨٠ ، ٣١٥، ٣٥٥ ، ٤٠٠ ، ٤٥٠ ، ٥٠٠ ، ٥٦٠ ، ٦٣٠)مم ، علامة تجارية (AJ Pipe) فقط .

After fulfilling the required requirements according to the normative documents : بعد استيفائها للمتطلبات اللازمة وفق المراجع القياسية التالية:

SASO ISO 4427-1,2/2009

Date of issue : ١٤٣٨/٠٦/٢٠هـ بداية تاريخ المنح:

Date of renewal : ٠٠٠٠/٠٠/٠٠هـ تاريخ التجديد :

Date of expiry : ١٤٤١/٠٦/١٩هـ تاريخ الإنتهاء :

نائب المحافظ للمطابقة والجودة
Vice-Governor for Conformity & Quality

الإدارة العامة لمنح الشهادات
الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

تم منح هذا الترخيص وفقاً لتنظيم الهيئة السعودية للمواصفات والمقاييس والجودة
الصادر بقرار مجلس الوزراء رقم ٢١٦ وتاريخ ١٤٣١/٠٦/١٧هـ

This license is granted according to the regulation of Saudi Standards, Metrology and Quality Organization that was issued based on the Council of Ministers' Resolution No. 216 dated 31-05-2010

تخضع هذه الشهادة خلال مدة سريانها للأنظمة واللوائح ذات العلاقة في المملكة العربية السعودية وأي تعليمات أو تعديلات تصدرها الهيئة.
This certificate is subject to during the period of validity of the rules and regulations relevant in the Kingdom of Saudi Arabia and any instructions or amendments issued by the commission.

ص.ب ٣٤٣٧ الرياض ١١٤٧١ المملكة العربية السعودية هاتف: ٩٦٦ ١٤٥٢٠٠٠٠+ فاكس: ١٤٥٢٠٠٨٦+٩٦٦
P.O.Box 3437 Riyadh 11471 KSA Tel : +966 14520000 Fax : +966 14520086
www.saso.gov.sa

الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

شهادة ترخيص باستعمال علامة الجودة

License For Use of The Quality Mark

License No: ١-٠٠٠٠٠٤٠٣٠١٦٦٧٣١٢٥٧٩٢٤-١٤٣٦-٢/٢ رقـــم الترخيص:

SASO certifies that: تشهد الهيئة السعودية للمواصفات والمقاييس والجودة بأنها رخصت

لـ : مصنع أبوالجدايل لمواسيرالفيبرجلاس والبولي إثيلين

Address : العنوان : جدة - المنطقة الصناعية - المرحلة الخامسة

Grant the right to use SASO quality mark on a following product: باستعمال علامة الجودة على منتجاتها التالية:

أنابيب البلاستيك عديد الايثلين لإمداد المياه (PE 100)الصنف (SDR 17) للمقاسات التالية :
(٣٢ ، ٤٠ ، ٥٠ ، ٦٣ ، ٧٥ ، ٩٠ ، ١١٠ ، ١٢٥ ، ١٤٠ ، ١٦٠ ، ١٨٠ ، ٢٠٠ ، ٢٢٥ ، ٢٥٠ ، ٢٨٠ ، ٣١٥ ،٣٥٥، ٤٠٠ ، ٤٥٠ ، ٥٠٠ ، ٥٦٠ ، ٦٣٠)مم ، علامة تجارية (AJ Pipe) فقط.

After fulfilling the required requirements according to the normative documents : بعد استيفائها للمتطلبات اللازمة وفق المراجع القياسية التالية:

SASO ISO 4427-1,2/2009

Date of issue : ١٤٣٨/٠٦/٢٠هـ بداية تاريخ المنح:

Date of renewal : ٠٠٠٠/٠٠/٠٠هـ تاريخ التجديد :

Date of expiry : ١٤٤١/٠٦/١٩هـ تاريخ الإنتهاء :

نائب المحافظ للمطابقة والجودة
Vice-Governor for Conformity & Quality

الإدارة العامة لمنح الشهادات
الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

تم منح هذا الترخيص وفقاً لتنظيم الهيئة السعودية للمواصفات والمقاييس والجودة
الصادر بقرار مجلس الوزراء رقم ٢١٦ وتاريخ ١٤٣١/٠٦/١٧هـ

This license is granted according to the regulation of Saudi Standards, Metrology and Quality Organization that was issued based on the Council of Ministers' Resolution No. 216 dated 31-05-2010

تخضع هذه الشهادة خلال مدة سريانها للأنظمة واللوائح ذات العلاقة في المملكة العربية السعودية وأي تعليمات أو تعديلات تصدرها الهيئة.

This certificate is subject to during the period of validity of the rules and regulations relevant in the Kingdom of Saudi Arabia and any instructions or amendments issued by the commission

ص.ب ٣٤٣٧ الرياض ١١٤٧١ المملكة العربية السعودية هاتف : ٠٠٠ ١٤٥٢ ٩٦٦+ فاكس : ٠٨٦ ١٤٥٢ ٩٦٦+
P.O.Box 3437 Riyadh 11471 KSA Tel : +966 14520000 Fax : +966 14520086

www.saso.gov.sa

ajpipe modern pipe technology

7. WRAS Approval for ajpipe

ajpipe has a certificate of **Water Regulation ○○Advisory Scheme (WRAS)** for cold and hot water use up to 50°, and listed in **Water Fittings and Materials Directory** under reference Number 0601507.

Please visit www.wras.co.uk

Attached:

- WRAS Approval
- WRAS Directory Reference Number
- **ajpipe** factory details on WRAS Directory

www.wras.co.uk

Approval Number: 1603524
Test Report: MAT/LAB 189K

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

7th April 2016

Abuljadayel Factory For PE & GRP Pipes
KSA-Jeddah-Industrial City Fifth Face,
Post Code 21412,
Saudi Arabia

WATER REGULATIONS ADVISORY 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**

`P6006`. Black coloured, extruded HDPE pipe. For use with water up to 50°C.

APPROVAL NUMBER: 1603524
APPROVAL HOLDER: ABULJADAYEL FACTORY FOR PE & GRP PIPES

The Scheme reserves the right to review approval.
Approval 1603524 is valid between March 2016 and March 2021

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.wras.co.uk/directory

Yours faithfully



Jason Furnival
Approvals & Enquiries Manager
Water Regulations Advisory Scheme

WRAS MATERIAL APPROVAL - MATERIALS WHICH HAVE PASSED FULL TESTS OF EFFECT ON WATER QUALITY

The material referred to in this letter is suitable for contact with water for domestic purposes. **Approval of this material does not signify the approval of its mechanical or physical properties for any use.**

Manufacturers or applicants may only quote in their sales literature terms which are used in this letter, namely that; 'the material as listed, having passed the tests of effect on water quality, is suitable for use in contact with wholesome water'

This may be abbreviated to 'Water Regulations Advisory Scheme - Approved Material' or 'WRAS Approved Material'.

The scope of an Approval does not extend to rebranded materials unless otherwise agreed by the Scheme.

Use of the WRAS Approved Material Logo

Approval holders may use the WRAS Approved Material logo and make reference to any approval issued by WRAS Ltd. in respect of a particular material or range of materials provided the approval is, and remains valid.

Approval holders are entitled to use the logo on the packing, promotional literature and point of sale advertising Approved Materials.

Modifications to existing Approvals

It is a condition of WRAS Material Approval that NO changes or modifications to the Approved Material, be made without the Approval Holder first notifying WRAS Ltd. Full details of the proposed changes must be provided to the Scheme. Failure to comply with this condition will immediately invalidate a previously granted Approval.

Re-Approval

WRAS will write to you 1 year before the approval expires asking whether you would like to renew it. Please complete the relevant section of the MA3 application form which will be included with the letter and return to WRAS (via e-mail or post).

Please note it is the responsibility of the Approval Holder to ensure the Approval remains valid. WRAS Ltd. accepts no liability for the delay in granting approval where this is caused by circumstances outside of the Scheme's control.

ajpipe modern pipe technology

8. ajpipe Complies with BS 6920: Part 1: 2000

ajpipe are tested in Intertek ETL SEMKO Laboratory of UK and approved according to British Standards BS 6920: Part 1: 2000 and has satisfied the criteria set out in BS, and found **suitable for use with hot water up to 50° C and cold Water.**

Attached:

- Test Report of **Intertek ETL SEMKO**

CONCLUSION

The sample of the product referred to in this report has been tested in accordance with the methods specified in BS 6920: Part 2: 2000 "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: Methods of test" (including High Temperature Tests in accordance with BS 6920: Part 3: 2000) and the requirements of the Water Regulations Advisory Scheme 'WRAS Materials Guidance, Version 2 dated 8 March 2013'.

This product has satisfied the criteria set out in BS 6920: Part 1: 2000 "Specification" and thus complies with the requirements of the Water Regulations Advisory Scheme Tests of Effect on Water Quality (BS 6920: 2000). It is suitable for use with hot water (up to 50°C) and cold water.

N.B The results specified in this report relate only to the sample of the product submitted for testing. Any changes in the nature or source of ingredients and the process of manufacture or application could affect the suitability of the product for use in contact with potable water.

Materials and products intended for use by a public water supply company in the preparation or conveyance of water may need to satisfy more comprehensive toxicological requirements as set specified by the Drinking Water Inspectorate. These additional requirements are necessary to ensure legal compliance with Regulation 31 of Water Supply (Water Quality) Regulations 2000.

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program

ajpipe
modern pipe technology

Quality Control at aj pipe

Equipment	Test	Reference Standard	Standard Value
	Determination of the resistance to internal Pressure	ISO 1167	5.5 Mpa (165 h at 80° c) 12.4 Mpa (100h at 20° c)

Equipment	Test	Reference Standard	Standard Value
	Determination of tensile properties	ISO 6259 Part 1 & 3	≥ 350 %

Equipment	Test	Reference Standard	Standard Value
	Determination of Carbon black contents	ASTM D 1603	2.25 ± 0.25 %

ajpipe
modern pipe technology

Quality Control at aj pipe

Equipment	Test	Reference Standard	Standard Value
	Determination of thermal stabilities of polyethylene	ISO 10837	≥20 min at 200° c

Equipment	Test	Reference Test Method	Standard Value
	Determination of Density	ISO 1183	≥930 kg /m³

Equipment	Test	Reference Standard	Standard Value
	Determination of Melt mass-flow rate (MFR)	ISO 1133	≤ 25 %

ajpipe modern pipe technology

Quality Control at aj pipe

Equipment	Test	Reference Standard	Standard Value
	Determination of Environmental Stress Cracking resistance	ASTM D 1693	

Equipment	Test	Reference Standard	Standard Value
	Method for the assessment of the degree of carbon black dispersion	ISO 11420	≤ 3 Grade

Equipment	Test	Reference Standard	Standard Value
	Longitudinal reversion	ISO 2505	≤ 3 %