

# WSAA PRODUCT APPRASIAL CERTIFICATE

## Empire Infrastructure Pty Ltd - BOSSPIPE Centrifugally Cast Glass-Reinforced Plastic Pipes for Non-Pressure Sewerage Applications.

**BOSSPIPE pipe and couplings have been appraised for compliance with the requirements of ISO 10467:2004 and WSAA Product Specification WSA PS 237S.**

The scope of this appraisal applies to BOSSPIPE GRP pipe and filament wound GRP couplings for non-pressure sewerage applications using open trench installation methods. A listing of Quality and Product Certification Certificates and products is included in the attached Schedules A and B.

<b>Product Category</b>	Glass-reinforced thermosetting plastics (GRP) systems based on unsaturated polyester (UP) resin – Pipe with flexible joints intended for open trench installations.
<b>PA Number:</b>	PA 1725
<b>Supplier</b>	Empire Infrastructure Pty Ltd
<b>Brand</b>	BOSSPIPE
<b>Standards</b>	ISO 10467:2004 <i>Plastics piping systems for pressure and non-pressure drainage and sewerage - Glass-reinforced thermosetting plastics (GRP) systems based on unsaturated polyester (UP) resin.</i>
<b>WSAA Product Specification</b>	WSA PS 237S - <i>Centrifugally Cast Glass Reinforced Plastic (CC-GRP) Pipes and Fittings (ISO Sized) for Pressure and Non-Pressure Applications - Sewerage</i>
<b>Other Specifications</b>	
<b>Issue date</b>	Thursday, 8th November 2018
<b>Expiry date</b>	Tuesday, 7th November 2023
<b>Recommendations</b>	It is recommended that WSAA members and associates, subject to any specific requirements of the member, accept or authorise the BOSSPIPE centrifugally cast glass reinforced plastic pipes and FW couplings in sizes DN 300 to DN 2000 as detailed in this report provided the design, installation and commissioning are in accordance with applicable WSAA Codes and the manufacturer's requirements.
<b>Disclaimer</b>	The disclaimer on Page 2 explains a number of very important limits on your ability to rely on the information in this Product Appraisal Certificate and the assessment criteria used to underlay it. Please read it carefully and take it into account when considering the content in this Certificate.

## **1. Disclaimer**

This Product Appraisal Certificate (Certificate) is issued by WSAA on the understanding that:

This Certificate applies to the product(s) as submitted in Schedule A. Any changes to the product(s) either minor or major shall void this Certificate.

To maintain the recommendations of this Certificate any such changes shall be detailed and notified to the Product Appraisal Manager for consideration and review of the Certificate including the product appraisal criteria underlying it and appropriate action. Appraisals and their recommendations will be the subject of continuous review dependent upon the satisfactory performance of products.

WSAA reserves the right to undertake random audits of product manufacture and installation. Where products fail to maintain appraised performance requirements the appraisal and its recommendations may be modified and reissued. Certificates will be reviewed and reissued at regular intervals not exceeding five (5) years.

WSAA reserves the right to withdraw this Certificate at any time in its sole and absolute discretion for any reason.

The following information explains a number of very important limits on your ability to rely on the information in this Certificate. Please read it carefully and take it into account when considering the contents of this Certificate.

Any enquiries regarding this Certificate should be directed to the Product Appraisal Manager Phone: 03 8605 7601 email carl.radford@wsaa.asn.au.

### **1.1. Issue of Certificate**

This Certificate has been published and/or prepared by WSAA and nominated Project Manager and peer group of technical specialists (the Publishers).

The Certificate and the underlying product appraisal criteria have been prepared for use within Australia only by technical specialists that have expertise in the function of products such as those appraised in the Certificate (the Recipients).

By accepting this Certificate, the Recipient acknowledges and represents to the Publisher(s) and each person involved in the preparation of the Certificate and product appraisal criteria underlying it that the Recipient has understood and accepted the terms of this Disclaimer.

### **1.2. Limits on Reliance on Information and Recommendations**

#### **1.2.1. Disclaimer of liability**

Neither the Publisher(s) nor any person involved in the preparation of the Certificate and product appraisal criteria underlying it accept(s) any liability for any loss or damage suffered by any person however caused (including negligence or the omission by any person to do anything) relating in any way to the Certificate or the product appraisal criteria underlying it. This includes (without limitation) any liability for any recommendation or information in the Certificate or any errors or omissions.

#### **1.2.2. Intellectual Property and other rights**

WSAA does not undertake any assessment of whether the importation, manufacture, sale or use of the Product the subject of this Certificate infringes the intellectual property rights or proprietary rights of any person. Recipients of the Certificate should undertake their own assessment of whether (as relevant) the importation, manufacture, sale or use of the relevant Products infringe the intellectual property rights or other proprietary rights of any person. If the Product infringes intellectual property rights or other proprietary rights there is potential for the supply of the Products to be interrupted.

From time to time WSAA and the other Publishers may receive notice of allegations that the importation, manufacture, sale or use of the Product infringes intellectual property rights or other proprietary rights. WSAA's policy is to not refer to such allegations in its Certificate or take any other steps to put Recipients on notice of such allegations. If, however, WSAA becomes aware that the allegations have been admitted or proved in Court, then WSAA may, at its discretion, take such steps as it considers appropriate. As such, Recipients acknowledge, agree and accept that WSAA may have information in its possession about intellectual property rights infringement allegations or other infringement allegations in relation to the Product which are not referred to or disclosed in this Certificate and which are not otherwise communicated to Recipients.

#### **1.2.3. Need for independent assessment**

The information and any recommendation contained (expressly or by implication) in this Certificate are provided in good faith (and subject to the limitations noted in this Certificate). However, you should treat the information as indicative only. You should not rely on that information or any such recommendation except to the extent that you reach an agreement to the contrary with the Publisher(s).

This Certificate does not contain all information that a person might require for the purposes of assessing any product discussed or appraised within it. The product appraisal criteria used in preparing this Certificate may not address all relevant aspects of the Product.

Recipients should seek independent evidence of any matter which is material to their decisions in connection with an assessment of the Product and consult their own advisers for any technical information required. Any decision to use the Product should take into account the reliability of that independent evidence obtained by the Recipient regarding the Product. Recipients should also independently verify and assess the appropriateness of any recommendation in the Certificate, especially given that any recommendation will not take into account a Recipient's particular needs or circumstances.

WSAA has not evaluated the extent of the product liability and professional indemnity insurance that the provider of the product maintains. Recipients should ensure that they evaluate the allocation of liability for product defects and any professional advice obtained in relation to the product or its specification including the requirements for product liability and professional indemnity insurance.

### **1.3. No Updating**

Neither the Publisher(s) nor any person involved in the preparation of this Certificate or the product appraisal criteria underlying it [has] [have] any obligation to notify you of any change in the information contained in this Certificate or of any new information concerning the Publisher(s) or the Product or any other matter.

### **1.4. No Warranty**

The Publisher(s) do[es] not, in any way, warrant that steps have been taken to verify or audit the accuracy or completeness of the information in this Certificate, or the accuracy, completeness or reasonableness of any recommendation in this Certificate.

**APPENDIX A - QUALITY AND PRODUCT CERTIFICATIONS**

Copies of the following Quality and Product Certification Certificates are available for downloading from the WSAA 'Members Only' project portal website.

**SCHEDULE A1 ZHEJIANG EASTERN HAOBO PIPES CO. LTD, CHINA – MANAGEMENT SYSTEMS**

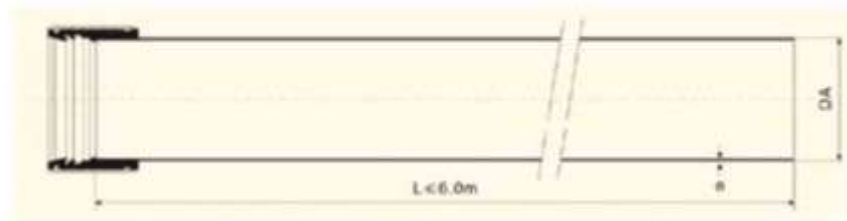
Qianjian Road, Wenzhou Economic & Tech. Development Zone, Wenzhou City, Zhejiang Province, China	
Quality Systems Standard	ISO 9001:2015
Certification license no.	CNBJ312013-UK
Certifying agency	Bureau Veritas
Original date of certification	22 December 2010
Current date of certification	22 December 2016
Expiry date of certification	21 December 2019

**SCHEDULE A2 - ZHEJIANG EASTERN HAOBO PIPES CO. LTD, CHINA – FACTORY APPROVAL AND TYPE APPROVAL CERTIFICATE**

No. 1 Qianjian Road, Wenzhou Economic & Tech. Development Zone, Wenzhou City, Zhejiang Province, China	
Product Standard/Spec.	ISO 10467:2004
Certificate No.	FA-INS/ZW-17/0158
Issuing certification body	Bureau Veritas
Original date of certification	12 December 2017
Current date of certification	31 January 2018
Expiry date of certification	11 December 2020



OPEN TRENCH PIPES



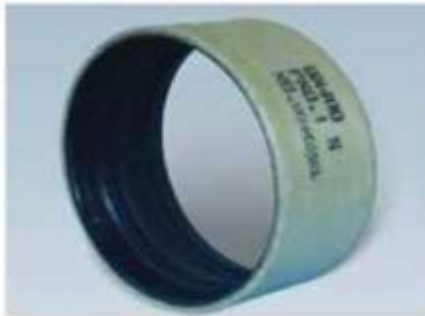
DN	DA	SN5000		SN10000		SN20000	
		e	kg/m	e	kg/m	e	kg/m
300	324	6.5	12.3	7.8	15.2	11.2	21.5
350	376	7.4	16.6	8.9	20.5	12.3	29.7
400	427	8.2	20.8	9.9	25.7	14.1	36.5
450	478	9.1	25.6	10.9	32.1	15.2	46.8
500	514	9.8	31.1	11.9	38.5	18.4	69.4
600	616	11.2	41.4	13.6	51.5	20.5	93.6
700	718	12.8	55.9	15.7	69.6	23.5	120.8
800	820	13.8	70.3	17.1	88.0	26.2	152.7
900	924	15.4	88.8	19.1	111.3	28.3	187.5
1000	1026	17.0	109.3	21.1	137.2	31.6	215.7
1100	1127	18.5	126.0	22.9	158.3	34.8	267.5
1200	1229	19.9	154.2	24.8	193.9	37.2	321.0
1350	1350	22.5	185.8	27.2	245.2	39.1	362.5
1400	1434	23.1	209.6	28.8	284.4	42.5	418.7
1500	1536	24.5	230.1	30.4	289.9	44.6	475.8
1600	1638	26.3	273.6	32.8	345.0	50.4	599.6
1800	1842	29.0	340.2	36.6	429.3	55.3	738.4
2000	2046	33.6	350.2	40.3	531.6	60.6	890.9
2200	2250	35.3	509.1	44.2	642.8		
2400	2400	37.7	579.4	47.1	735.6	64.9	1059.4



PRODUCT RANGE



FWC COUPLING



DN	PN1 - PN6			PN7 - PN10			PN11 - PN16		
	LC	DEC	M	LC	DEC	M	LC	DEC	M
	mm	mm	kg	mm	mm	kg	mm	mm	kg
300	200	360	5.0	200	360	5.0	200	360	5.0
350	200	412	5.5	200	412	5.5	200	412	5.5
400	200	463	6.0	200	463	7.0	200	470	7.0
450	200	514	6.5	200	514	7.5	200	514	8.0
500	200	550	7.0	200	550	7.0	200	556	9.0
600	200	652	8.0	200	652	8.0	200	660	10.0
700	200	770	13.0	200	770	13.0	200	770	20.0
800	250	870	17.0	250	870	19.0	250	880	24.0
900	250	970	20.0	250	970	23.0	250	990	28.0
1000	250	1080	22.0	250	1080	25.0	250	1100	33.0
1100	250	1150	24.0	250	1150	28.0	250	1170	36.0
1200	250	1275	26.0	250	1300	32.0	250	1320	42.0
1350	250	1397	29.0	250	1406	41.0	250	1420	54.0
1400	250	1480	31.0	250	1497	51.0	250	1505	66.0
1500	250	1585	33.0	290	1602	58.0	290	1610	72.0
1600	290	1690	49.0	290	1710	65.0	290	1730	89.0
1800	290	1900	60.0	290	1920	83.0	290	1940	115.0
2000	290	2110	69.0	290	2130	99.0			
2200	290	2309	98.0	290	2330	115.0			
2400	290	2475	114.0	290	2495	132.0			