

Certificate of Conformity

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Product designation

OneSteel, FirePlus™ Light, steel fire sprinkler/hydrant pipe
(Refer to the Schedule/enclosures for further specified details)

Agent/distributor

OneSteel Limited
Industrial Drive, MAYFIELD, NSW, AUSTRALIA, 2304

Registrant

OneSteel Australian Tube Mills
146 Ingram Road, ACACIA RIDGE, QLD, AUSTRALIA, 4110

Producer

OneSteel Limited
Industrial Drive, MAYFIELD, NSW, AUSTRALIA, 2304

Conformance criteria and evaluation

The OneSteel, FirePlus™ Light, steel fire sprinkler/hydrant pipe has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 4118.2.1-1995, 'Fire sprinkler systems - Piping - General'.
2. SSL Appraisal Specification FAS-119, Version 1.0, 'ERW Steel Pipes to AS 4118 Part 2.1 and Draft Australian Standard 2462.CDR, Sizes DN25 to DN100, for Fire Protection Systems'.

Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this certificate, are derived from qualifications from evaluation(s) for conformity and/or other related technical documentation. All details with respect to design, assembly and installation instructions and restrictions should be checked against the producer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

Specified limitations/conditions, determined from the evaluation for conformity, include the following.

- i. Fire system designers, and authorities having jurisdiction, must confirm that the codes or standards used for the system design adequately address the hydraulic characteristics of this product. Full hydraulic analysis is an approved and recommended method of determining that system performance will meet design requirements.
- ii. All listed sizes are suitable for jointing by shouldered-end coupling but are not suitable for screw-threading with standard pipe threads. Sizes with wall thicknesses greater than 2.5 mm may be joined by butt-welding, but the welds shall be done only in the workshop.
- iii. None of the listed pipes shall be used below ground unless they are protected with hot-dipped galvanising to a minimum average coating mass of 300 gm/m².

Issued by



David Whittaker
Executive Officer – ActivFire Scheme



Schedule to Certificate of Conformity

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Producer's description

The OneSteel, FirePlus™ Light, steel fire sprinkler/hydrant pipe is a light-weight moderate to high strength steel pipe which is surface-protected by:

- an external in-line galvanised coating with a conversion coating, or
- hot-dipped galvanising externally and internally, or
- an external painted finish, such as red-oxide primer or red enamel.

All listed sizes are suitable for use with rolled-groove type couplings and fittings of suitable diameter and groove profile. All listed sizes are also suitable for jointing by shouldered-end coupling but are not suitable for screw-threading with standard pipe threads. Some sizes may be joined by butt-welding (refer Limitations of Use).

Technical specification

The following details are a representative extract of the technical specification for the OneSteel, FirePlus™ Light, steel fire sprinkler/hydrant pipe and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Pipe Dimensions

Nominal size nom.	Nominal outside diameter	Nominal inside diameter	Nominal wall thickness	Mass per metre
25 mm	33.7 mm	29.7 mm	2.0 mm	1.56 kg
25 mm	33.7 mm	28.5 mm	2.6 mm	1.99 kg
32 mm	42.4 mm	38.4 mm	2.0 mm	1.99 kg
32 mm	42.4 mm	37.2 mm	2.6 mm	2.54 kg
40 mm	48.3 mm	43.7 mm	2.3 mm	2.61 kg
40 mm	48.3 mm	42.5 mm	2.9 mm	3.25 kg
50 mm	60.3 mm	55.7 mm	2.3 mm	3.29 kg
50 mm	60.3 mm	54.5 mm	2.9 mm	4.11 kg
65 mm	76.1 mm	71.5mm	2.3 mm	4.19 kg
65 mm	76.1 mm	69.7 mm	3.2 mm	5.75 kg
80 mm	88.9 mm	83.7 mm	2.6 mm	5.53 kg
80 mm	88.9 mm	82.5 mm	3.2 mm	6.76 kg
100 mm	114.3 mm	108.2 mm	3.05 mm	8.37 kg
150 mm	165.1 mm	158.3 mm	3.4 mm	13.6 kg

General

The OneSteel, FirePlus™ Light, steel fire sprinkler/hydrant pipe is manufactured by using electric resistance welding method in accordance with the requirements of SSL Appraisal Specification FAS-119: Version 2.0, 'ERW Steel Pipe for Fire Protection Systems, Sizes DN25 to DN150, to AS 4118 Part 2.1 and Draft Australian Standard 2462.CDR.'

Leak-Tightness

The leak-tightness and integrity of the weld is ensured by 100% testing with eddy-current or ultrasonic type flaw-detection equipment.

Galvanising

The in-line galvanised coating is applied in accordance with AS/NZS 4792, Coating Class ILG100, and has a minimum average mass of 100 grams/m². A conversion coating is applied over the galvanising coating to minimise risk of "white rust".

The hot-dipped galvanised coating is applied in accordance with AS/NZS 4792, Coating Class HDG300, and has a minimum average mass of 300 grams/m².

Steel Properties

Yield strength (MPa) Minimum	290
Ultimate tensile strength (MPa) Minimum	415
Minimum Elongation (%), where gauge length = 5.65*(S ₀) ^{0.5}	15