



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 3506	31-Aug-2020	Number 3	Issue date 17-May-2022	30-Apr-2023

Product designation

Tiger, AS 1074 (FM Class 1630) Series, plain end and roll grooved end, fire sprinkler/hydrant pipe
(Refer to the Schedule/enclosures for further specified details)

Agent/distributor

Macsteel International Australia
Suite 2.01, 1 Gordon Street, CREMORNE, VIC, AUSTRALIA, 3121

Registrant

Macsteel International Australia
Suite 2.01, 1 Gordon Street, CREMORNE, VIC, AUSTRALIA, 3121

Producer

T S I Metal Industries (L.L.C.)
Al Quasis Industrial Area 1, PO Box 3208, DUBAI, UNITED ARAB EMIRATES

Conformance criteria and evaluation

The Tiger, AS 1074 (FM Class 1630) Series, plain end and roll grooved end, fire sprinkler/hydrant pipe has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 1074-1989, 'Steel tubes and tubulars for ordinary service'.
2. Approval Standard FM Class Number 1630, 'Approval Standard for Steel Pipe for Automatic Fire Sprinkler Systems'.
3. Factory Mutual - Evaluation and approval, 'FM approval'.

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. System design and installation shall be determined and verified in accordance with the performance and prescribed requirements of the regulations, standards and criteria as specified by the building code and authorities having jurisdiction.
- ii. System design and installation requirements may specify a minimum wall thickness that precludes the use of some of the scheduled pipe sizes for certain applications and locations.
- iii. The dimensional and mechanical compatibility of pipes must be verified with the sizes of components by which they are connected or to which they connect.

Issued by

David Whittaker
Executive Officer – ActivFire Scheme



Schedule to Certificate of Conformity

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Producer's description

The production and physical characteristics of Tiger, AS 1074 (FM Class 1630) Series, plain end and roll grooved end, fire sprinkler/hydrant pipe are summarised as follows:

- The pipe is produced as ERW tube from Hot Rolled steel strip.
- The individual lengths of pipe are HDG (Inner surface as well as outer surface).
- Steel is processed in accordance with AS1074.
- The HDG coating conforms to AS/NZS 4792 – coating class HDG300 (300 g/m² min coating mass).

Technical specification

The following details are a representative extract of the technical specification for the Tiger, AS 1074 (FM Class 1630) Series, plain end and roll grooved end, 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.

Schedule of variant designations

The following is a schedule of validated variant designations of the certified/listed equipment.

DN	Inch	Class	OD min	OD max	Thickness	Surface finish options	End finish options
15	½"	Light	21.0 mm	21.4 mm	2.00 mm	Black/painted/HDG	PE/RG/Threaded
20	¾"	Light	26.4 mm	26.9 mm	2.30 mm	Black/painted/HDG	PE/RG/Threaded
25	1"	Light	33.2 mm	33.8 mm	2.60 mm	Black/painted/HDG	PE/RG/Threaded
32	1¼"	Light	41.9 mm	42.5 mm	2.60 mm	Black/painted/HDG	PE/RG/Threaded
40	1½"	Light	47.8 mm	48.4 mm	2.90 mm	Black/painted/HDG	PE/RG/Threaded
50	2"	Light	59.6 mm	60.2 mm	2.90 mm	Black/painted/HDG	PE/RG/Threaded
65	2½"	Light	75.2 mm	76.0 mm	3.20 mm	Black/painted/HDG	PE/RG/Threaded
80	3"	Light	87.9 mm	88.7 mm	3.20 mm	Black/painted/HDG	PE/RG/Threaded
100	4"	Light	113.0 mm	113.9 mm	3.60 mm	Black/painted/HDG	PE/RG/Threaded
150	6"	Light	165.1 mm	165.1 mm	3.50 mm	Black/painted/HDG	PE/RG/Threaded
15	½"	Medium	21.1 mm	21.7 mm	2.60 mm	Black/painted/HDG	PE/RG/Threaded
20	¾"	Medium	26.6 mm	27.2 mm	2.60 mm	Black/painted/HDG	PE/RG/Threaded
25	1"	Medium	33.4 mm	34.2 mm	3.20 mm	Black/painted/HDG	PE/RG/Threaded
32	1¼"	Medium	42.1 mm	42.9 mm	3.20 mm	Black/painted/HDG	PE/RG/Threaded
40	1½"	Medium	48.0 mm	48.8 mm	3.20 mm	Black/painted/HDG	PE/RG/Threaded
50	2"	Medium	59.8 mm	60.8 mm	3.60 mm	Black/painted/HDG	PE/RG/Threaded
65	2½"	Medium	75.4 mm	76.6 mm	3.60 mm	Black/painted/HDG	PE/RG/Threaded
80	3"	Medium	88.1 mm	89.5 mm	4.00 mm	Black/painted/HDG	PE/RG/Threaded
100	4"	Medium	113.3 mm	114.9 mm	4.50 mm	Black/painted/HDG	PE/RG/Threaded
125	5"	Medium	138.7 mm	140.6 mm	5.00 mm	Black/painted/HDG	PE/RG/Threaded
150	6"	Medium	164.1 mm	166.1 mm	5.00 mm	Black/painted/HDG	PE/RG/Threaded
15	½"	Heavy	21.1 mm	21.7 mm	3.20 mm	Black/painted/HDG	PE/RG/Threaded
20	¾"	Heavy	26.6 mm	27.2 mm	3.20 mm	Black/painted/HDG	PE/RG/Threaded
25	1"	Heavy	33.4 mm	34.2 mm	4.00 mm	Black/painted/HDG	PE/RG/Threaded
32	1¼"	Heavy	42.1 mm	42.9 mm	4.00 mm	Black/painted/HDG	PE/RG/Threaded
40	1½"	Heavy	48.0 mm	48.8 mm	4.00 mm	Black/painted/HDG	PE/RG/Threaded
50	2"	Heavy	59.8 mm	60.8 mm	4.50 mm	Black/painted/HDG	PE/RG/Threaded
65	2½"	Heavy	75.4 mm	76.6 mm	4.50 mm	Black/painted/HDG	PE/RG/Threaded
80	3"	Heavy	88.1 mm	89.5 mm	5.00 mm	Black/painted/HDG	PE/RG/Threaded
100	4"	Heavy	113.3 mm	114.9 mm	5.40 mm	Black/painted/HDG	PE/RG/Threaded
125	5"	Heavy	138.7 mm	140.6 mm	5.40 mm	Black/painted/HDG	PE/RG/Threaded
150	6"	Heavy	164.1 mm	166.1 mm	5.40 mm	Black/painted/HDG	PE/RG/Threaded

PE: Plain End
 RG: Rolled Groove
 HDG: Hot-dipped Galvanising

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Schedule of properties/characteristics

The following schedule is an extract of physical and operational properties/characteristics of the certified/listed equipment.

Yield strength (min)	195 MPa
Ultimate Tensile Strength	320 to 460 MPa
Minimum elongation	20%
Galvanising, if specified	Hot-dip galvanized coating conforms with AS/NZS 4792, coating class HDG300. Minimum average coating mass of 300 g/m ² of pipe surface.
Threading	AS 1722.1

Supplementary information

Schedule of relevant articles

The following schedule is an extract of articles significant and/or related as evidence of conformity.

Reference		Title / description	Date issued (or date validated)	Source
Ident. type	Ident.			
Approval Identification	3058338	Certificate of Compliance Steel Pipe for Automatic Fire Sprinkler Systems AS 1074	21-Dec-2017	FM Approvals, US
Technical data sheet	tsi_TechnicalData_AS1074_2020-08-14.pdf	Technical Data of Tubes Conforming to AS:1074 (tsi_TechnicalData_AS1074_2020-08-14.pdf)	23-Jun-2019	T S I Metal Industries (L.L.C.), AE