

# FIRESIST® FIRE SPRINKLER PIPES



Borusan Pipe is a leading steel pipe manufacturer with over 65 years of industry expertise, producing more than 4,000 products across 10 state-of-the-art facilities in Türkiye, Italy, Romania, and the USA.

As a trusted provider of fire protection solutions, we offer the widest range of UL Listed & FM Approved fire protection pipes. Our product portfolio includes bare, galvanized, primer-varnished, and epoxy-coated options, along with various end configurations such as roll-grooved, threaded & coupled, or beveled pipe ends.

With an extensive sales network spanning over 35 countries, Borusan Pipe is committed to being your preferred partner in fire protection projects. Through customer-focused R&D, long-term collaboration, consistent product quality, and seamless communication, we ensure the highest standards of reliability and performance.

For more information, contact us at [export@borusan.com](mailto:export@borusan.com).



## OVERVIEW

	C4-M Corrosivity Category	Regrooveable	Color	Eliminating Field Painting
FIRESIST PLUS	✓	✓	RAL 7012 RAL 3000	✓
FIRESIST EPOXY			RAL 7012 RAL 3000 RAL 3009 RAL 9016 RAL 1018	✓
FIRESIST VARNISH			RAL 9005 RAL 7012 RAL 3000 RAL 3009 RAL 5017 RAL 5005	
GALVANIZED	✓	✓	Galvanized	✓

## FIRESIST PLUS EPOXY COATED SPRINKLER PIPES

Premium epoxy-coated Firesist plus pipes are certified as corrosivity category C4-M and proven to exhibit outstanding mechanical performance by European independent third-party testing laboratories. They are suitable for difficult environmental conditions and ideal for continuous operation up to 98 °C. Firesist plus pipes are specially developed with ease of on-site use in mind. They allow regrooving with no flaking or peeling on pipe ends. The coating color and texture are not visually affected by heat during cutting and drilling.

### Firesist Plus Product Specifications

- ✦ Superior epoxy coating up to 250 microns
- ✦ C4-M certified for corrosivity category
- ✦ Available in Gray (RAL 7012) and Red (RAL 3000)
- ✦ Roll-grooved threaded & coupled or beveled pipe ends
- ✦ Eliminates field painting
- ✦ Widest range of UL and FM approvals CE certified, UKCA certified for EN 10217-1/2
- ✦ Produced according to ASTM, EN, AS 1074, and AS/NZS 1163 standards
- ✦ Pressure ratings up to 300 psi
- ✦ Size range: 1/2" – 12"
- ✦ Reliable in all sizes
- ✦ Inner weld seam removal and custom length upon request
- ✦ Tight tolerances, consistent roundness, and straightness
- ✦ Regroovable



### Technical Data Sheet

#### CORROSION RESISTANCE

Corrosivity Category	C4-M (urban, industrial, coastal, seashore)	ISO 12944-6:2018
Water Condensation (240 h)	No visual change (incl. blistering, rusting, cracking, flaking) 21,4 MPa adhesion	ISO 6270-1
Neutral Salt Spray (480 h)	No visual change 0,0 mm corrosion from scribe 21,9 MPa adhesion	ISO 9227

#### MECHANICAL PERFORMANCE

Cathodic Disbondment	R < 4 mm (168 hours, 24 °C)	ASTM G8-96
Cross-cut	Gt 0	ISO 2409:2007
Adhesion	22,9 MPa	ISO 4624-B
Impact Resistance	≥ 2,0 N.m	ASTM D2794
Mandrel Bend Test	≥ 2 mm	ISO 1519:2011
Cupping Test (Erichsen Drawing)	≥ 11 mm	ISO 1520:2006
Buchholz Hardness	> 250 (0,0 mm)	ISO 2815:2003
Gloss	90 – 94 (60°) 40 – 48 (20°)	DIN EN ISO 2813:2014

#### CHEMICAL RESISTANCE

Immersion (45 days at 24°C) • Distilled water • 3 molar calcium chloride • 3 molar sodium chloride • Sat. calcium hydroxide	No holidays No undercutting No blistering No loss of bond No softening	ASTM A775
Chloride Permeability	1.4 x 10 <sup>-5</sup> M (45 days at 24°C)	ASTM A775

(\*): DEKRA approval is available upon request.

\*\*\*Given technical properties are for RAL 7012, RAL 3000 properties are available upon request.

## FIRESIST EPOXY COATED SPRINKLER PIPES

- ✦ Powder epoxy coating up to 100 microns
- ✦ Available in Red (RAL 3000), Grey (RAL 7012), White (RAL 9016) and Yellow (RAL 1018)
- ✦ Roll-grooved threaded & coupled or beveled pipe ends
- ✦ Eliminates field painting
- ✦ Widest range of UL and FM approval, CE certified, UKCA certified for EN 10217-1/2
- ✦ Produced according to ASTM, EN, AS 1074, and AS/NZS 1163 standards
- ✦ Pressure ratings up to 300 psi
- ✦ Size range: 1/2" – 12"
- ✦ Reliable in all sizes
- ✦ Inner weld seam removal and custom length upon request
- ✦ Tight tolerances, consistent roundness and straightness



## FIRESIST PRIMER VARNISHED SPRINKLER PIPES

Primer varnished sprinkler pipes provide protection against corrosion with low overhead cost.

- ✦ Varnishing coating between 20 – 25 microns
- ✦ Protects against atmospheric rust
- ✦ Available in Black (RAL 9005), Gray (RAL 7012), Red (RAL 3000), Red-Brown (RAL 3009), and Blue (RAL 5017, RAL 5005)
- ✦ Roll-grooved threaded & coupled or beveled pipe end
- ✦ Saves time, labor, cost, scrap
- ✦ Inner weld seam removal and custom length upon request
- ✦ Widest range of UL and FM approvals CE certified, UKCA certified for EN 10217-1/2
- ✦ Produced according to ASTM, EN, AS 1074, and AS/NZS 1163 standards
- ✦ Pressure ratings up to 300 psi
- ✦ Size range: 1/2" – 12"
- ✦ Reliable in all sizes
- ✦ Tight tolerances, consistent roundness, and straightness



Primer varnished sprinkler pipes provide protection against corrosion for up to 60 days under appropriate shipping and storage conditions.

# GALVANIZED SPRINKLER PIPES

Zinc coated sprinkler pipes provide long lasting protection against corrosion. They are compatible for use in wet, dry, pre-action and deluge sprinkler systems.

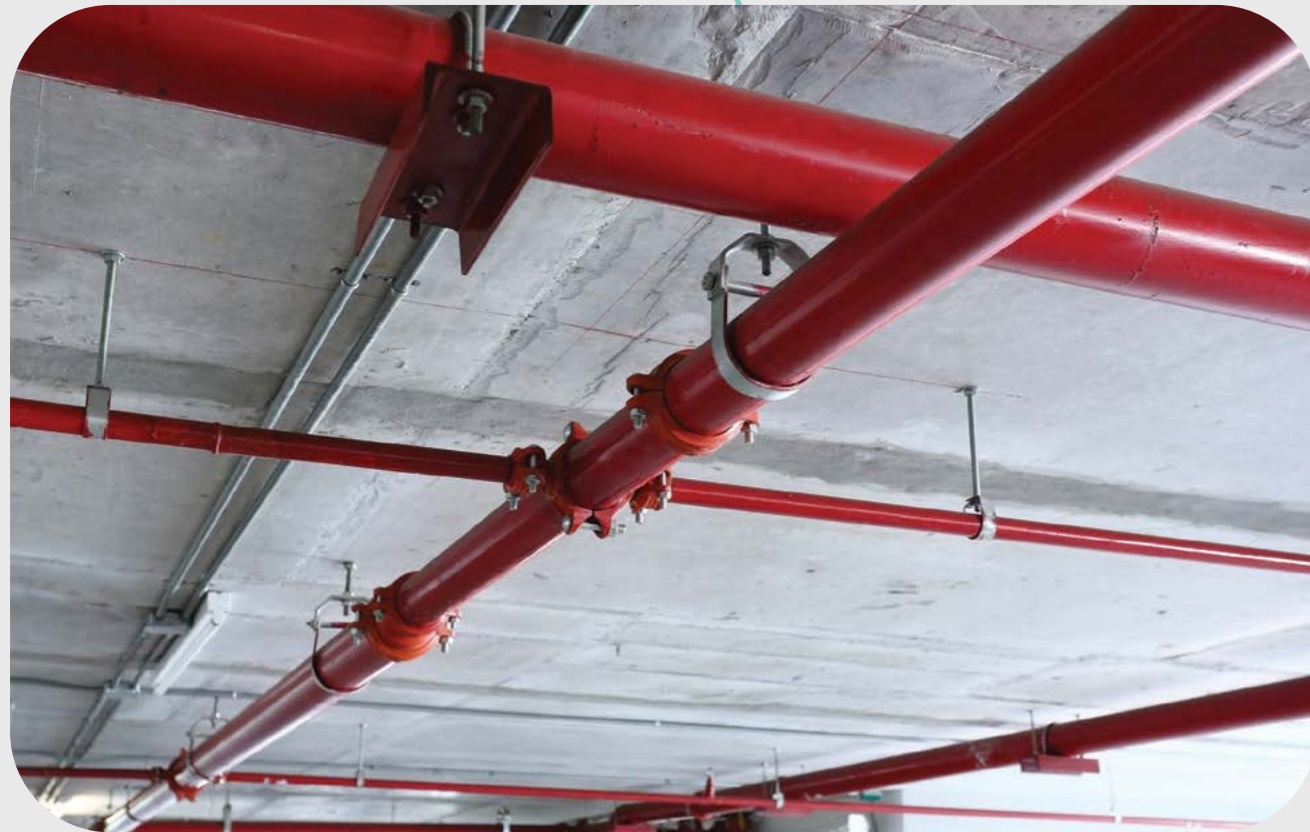
- ✔ Superior zinc coating between 50 – 55 microns
- ✔ Maintains corrosion resistance
- ✔ Roll-grooved threaded & coupled or beveled pipe ends
- ✔ Easy to weld and install
- ✔ Compliant with European project requirements
- ✔ Inner weld seam removal and custom length upon request
- ✔ Widest range of UL and FM approvals CE and DVGW certified
- ✔ Produced according to ASTM and EN standards
- ✔ Pressure ratings up to 300 psi
- ✔ Size range: 1/2" – 12"
- ✔ Reliable in all sizes
- ✔ Tight tolerances, consistent roundness and straightness



## Technical Data Sheet

### CORROSION RESISTANCE

Corrosivity Category	C4-M (industrial and potable water)	ISO 12944-6:2018
Water Condensation (240 h)	No visual change (incl. blistering, rusting, cracking, flaking) 13,1 MPa adhesion	ISO 6270-1
Neutral Salt Spray (480 h)	No visual change 0,0 mm corrosion from scribe 3,8 MPa adhesion	ISO 9227



## ASTM A53 – ASTM A795 – EN 10217-1

	OD (mm)	OD (inch)	Wall Thickness (mm)	Wall Thickness (inch)	Weight (kg/m)	Weight (lb/ft)	UL	FM
EASY FLOW LIGHTWALL	33,7	1"	2	0,079	1,56	1,05		✔
	33,7	1"	2,60	0,102	1,99	1,34		✔
	42,4	1 1/4"	2,00	0,079	1,99	1,34		✔
	42,4	1 1/4"	2,30	0,091	2,27	1,53		✔
	42,4	1 1/4"	2,60	0,102	2,55	1,71		✔
	48,3	1 1/2"	2,00	0,079	2,28	1,53		✔
	48,3	1 1/2"	2,30	0,091	2,61	1,75		✔
	48,3	1 1/2"	2,60	0,102	2,93	1,97		✔
	60,3	1 1/2"	2,00	0,079	2,88	1,93		✔
	60,3	2"	2,60	0,102	3,70	2,49		✔
	60,3	2"	2,90	0,114	4,10	2,76		✔
	76,1	2 1/2"	2,18	0,086	3,97	2,67		✔
	76,1	2 1/2"	2,60	0,102	4,71	3,17		✔
	76,1	2 1/2"	2,90	0,114	5,23	3,52		✔
	88,9	3"	2,36	0,093	5,04	3,38		✔
	88,9	3"	2,90	0,114	6,15	4,13		✔
88,9	3"	3,20	0,126	6,76	4,54		✔	
114,3	4"	2,60	0,102	7,16	4,81		✔	
114,3	4"	3,60	0,142	9,83	6,60		✔	
139,7	5"	3,40	0,134	11,43	7,68		✔	
33,4	1"	2,00	0,079	1,55	1,04	✔	✔	
42,2	1 1/4"	2,00	0,079	1,98	1,33	✔	✔	
48,3	1 1/2"	2,13	0,084	2,42	1,62	✔	✔	
60,3	2"	2,13	0,084	3,05	2,05	✔	✔	
73	2 1/2"	2,18	0,086	3,80	2,55	✔	✔	
88,9	3"	2,36	0,093	5,04	3,38	✔	✔	
114,3	4"	2,60	0,102	7,16	4,81	✔	✔	
141,3	5"	3,40	0,134	11,56	7,76	✔	✔	
26,7	3/4"	2,11	0,083	1,28	0,86	✔	✔	
33,4	1"	2,77	0,109	2,09	1,41	✔	✔	
42,2	1 1/4"	2,77	0,109	2,69	1,81	✔	✔	
48,3	1 1/2"	2,77	0,109	3,11	2,09	✔	✔	
60,3	2"	2,77	0,109	3,93	2,64	✔	✔	
73	2 1/2"	3,05	0,120	5,26	3,53	✔	✔	
88,9	3"	3,05	0,120	6,46	4,34	✔	✔	
101,6	3 1/2"	3,05	0,120	7,41	4,98	✔	✔	
114,3	4"	3,05	0,120	8,37	5,62	✔	✔	
139,7	5 1/2"	3,6	0,142	12,08	8,12	✔	✔	
141,3	5"	3,4	0,134	11,58	7,78	✔	✔	
168,3	6"	3,4	0,134	13,85	9,30	✔	✔	
219,1	8"	3,76	0,148	19,97	13,4	✔	✔	
219,1	8"	4,78	0,188	25,26	16,96	✔	✔	
273,1	10"	4,19	0,165	27,79	18,67	✔	✔	
273,1	10"	4,78	0,188	31,62	21,23	✔	✔	
323,8	12"	4,78	0,188	37,61	25,28	✔	✔	
33,4	1"	2,90	0,114	2,18	1,46		✔	
42,2	1 1/4"	2,97	0,117	2,87	1,93		✔	
48,3	1 1/2"	3,18	0,125	3,53	2,37		✔	
60,3	2"	3,18	0,125	4,48	3,00		✔	
73	2 1/2"	4,78	0,188	8,04	5,40		✔	
88,9	3"	4,78	0,188	9,92	6,65		✔	
101,6	3 1/2"	4,78	0,188	11,41	7,65		✔	
114,3	4"	4,78	0,188	12,91	8,66		✔	
141,3	5"	5,56	0,219	18,61	12,51		✔	
168,3	6"	5,56	0,219	22,31	15,00		✔	
219,1	8"	7,04	0,277	36,82	24,72		✔	
273,1	10"	7,8	0,307	51,05	34,27		✔	
21,3	1/2"	2,77	0,109	1,27	0,85	✔	✔	
26,7	3/4"	2,87	0,113	1,69	1,13	✔	✔	
33,4	1"	3,38	0,133	2,50	1,68	✔	✔	
42,2	1 1/4"	3,56	0,140	3,39	2,27	✔	✔	
48,3	1 1/2"	3,68	0,145	4,05	2,72	✔	✔	
60,3	2"	3,91	0,154	5,45	3,66	✔	✔	
73	2 1/2"	5,16	0,203	8,64	5,80	✔	✔	
88,9	3"	5,49	0,216	11,29	7,58	✔	✔	
101,6	3 1/2"	5,74	0,226	13,58	9,12	✔	✔	
114,3	4"	6,02	0,237	16,09	10,80	✔	✔	
141,3	5"	6,55	0,258	21,79	14,63	✔	✔	
168,3	6"	7,11	0,280	28,29	18,99	✔	✔	
219,1	8"	8,18	0,322	45,34	30,45	✔	✔	
273,1	10"	9,27	0,365	60,29	40,52	✔	✔	
21,3	1/2"	3,73	0,147	1,62	1,09		✔	
26,7	3/4"	3,91	0,154	2,20	1,48		✔	
33,4	1"	4,55	0,179	3,25	2,19		✔	
42,2	1 1/4"	4,85	0,191	4,49	3,03		✔	
48,3	1 1/2"	5,08	0,200	5,39	3,65		✔	
60,3	2"	5,54	0,218	7,55	5,08		✔	
73	2 1/2"	7,01	0,276	11,52	7,75		✔	
88,9	3"	7,62	0,300	15,39	10,35		✔	
101,6	3 1/2"	8,08	0,318	18,82	12,67		✔	
114,3	4"	8,56	0,337	22,60	15,20		✔	
141,3	5"	9,52	0,375	31,42	21,04		✔	
168,3	6"	10,97	0,432	43,05	28,88		✔	
219,1	8"	12,70	0,500	65,41	44,00		✔	

Certification Process	OD (mm)	OD (inch)	Wall Thickness (mm)	Wall Thickness (inch)	Weight (kg/m)	Weight (lb/ft)	UL	FM
	114,3	4"	3,20	0,126	8,77	5,89		
	168,3	6"	4,00	0,157	16,21	10,89		
	273,0	10"	5,00	0,197	33,05	22,21		
	323,9	10"	5,60	0,220	43,96	29,54		

## EN 10255 UL & FM

EN 10255 Medium	OD (mm)	OD (inch)	Wall Thickness (mm)	Wall Thickness (inch)	UL	FM
	21,3	1/2"	2,6	0,102		
	26,9	3/4"	2,6	0,102		
	33,7	1"	3,2	0,126		✓
	42,4	1 1/4"	3,2	0,126	✓	✓
	48,3	1 1/2"	3,2	0,126	✓	✓
	60,3	2"	3,6	0,142	✓	✓
	76,1	2 1/2"	3,6	0,142	✓	✓
	88,9	3"	4	0,157	✓	✓
	114,3	4"	4,5	0,177	✓	✓
	139,7	5"	5	0,197	✓	✓
165,1	6"	5	0,197	✓	✓	

EN 10255 Heavy	OD (mm)	OD (inch)	Wall Thickness (mm)	Wall Thickness (inch)	FM
	21,3	1/2"	3,2	0,126	✓
	26,9	3/4"	3,2	0,126	✓
	33,7	1"	4	0,157	✓
	42,4	1 1/4"	4	0,157	✓
	48,3	1 1/2"	4	0,157	✓
	60,3	2"	4,5	0,177	✓
	76,1	2 1/2"	4,5	0,177	✓
	88,9	3"	5	0,197	✓
	114,3	4"	5,4	0,213	✓
	139,7	5"	5,4	0,213	✓
165,1	6"	5,4	0,213	✓	



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