FIRESIST® FIRE SPRINKLER PIPES

Borusan Mannesmann is the first manufacturer in Europe and Turkey who has been UL listed and FM approved according to EN standards since 2015 and UL listed and FM approved according to ASTM standards since 2007.

In recent years, the importance of fire protections systems has increased significantly due to regulations and legislations in Occupational Health and Safety area. Fire protection systems have been disseminating in houses, shopping malls, airports and industrial facilities. In Europe over 4.000 and in the U.S over 3.500 lives are lost annually as a result of fire injuries. Consequently, fire protection measures have become an increasingly vital matter.

Borusan Mannesmann, a solution partner of its customers in the areas of black, galvanized and grooved pipes, is proud to be the avant-garde of fire protection pipes.

Firesist fire sprinkler pipes can be used in wet extinguishing systems including fire cabinet, hydrant and sprinkler systems. Alternatively, BM pipes have applications in sparkling, gas and dry chemical extinguishing systems for fire protection purposes.

Underwriters Laboratories (UL); is an international independent engineering and security company that tests the compliance of fire-safety systems with fire safety standards for the building elements of the system. UL is headquartered in the USA and serves in 6 continents; it operates in five main strategic areas including product safety, environment, health, university and verification services. Thousands of types of products, materials, and systems are scientifically assessed, tested, and approved by UL in compliance with the risks of electricity, fire, and injury. On the other hand, FM (Factory Mutual); is an independent technical unit of the FMI Company that insures great risks such as fire, natural disasters and it certifies the performance of the materials and systems. FM performs risk and insurance calculations through engineering analysis, which is different from the analysis prepared by insurance statisticians for many years.

Fire protection systems designed by using UL and FM approved system elements (pipe, valve, pump, sprinkler, etc.) avoids, life and property losses and provide economic advantages in insuring buildings against fire.

Borusan Mannesmann is the first steel pipe manufacturer which have UL and FM certificates according to EN standards in Europe.

Why FIRESIST sprinkler pipes?

Firesist sprinkler pipes are UL and FM certified according to EN and ASTM standards. Due to having high product quality and accredited by international institutions, the use of Firesist sprinkler pipes provides economic advantages in terms of insuring the buildings against fire.

Firesist Sprinkler Pipes have 1 layer (up to 30 micron) of sand blasted varnish coating.

1- Provides corrosion protection for 6 months until the final layer is coated. In order to reuse the corroded pipe, sandblasting and painting processes are necessary. In some cases, pipes may not be used where atmospheric rust has progressed and deep corrosion has occurred. Firesist provides long lasting fire protection system, provides low overhead costs and saves time, labor and scrap.

2- The priming process applied to Firesist products is done immediately after the production of pipes. The primer is applied to the adherence surface without contamination of foreign matter such as dirt, dust, etc. before the atmospheric rust is formed. Therefore, Firesist sprinkler pipes are better quality and long lasting and provide savings from costs of maintenance/repair.

Inside weld bead is removed for grooved Firesist Sprinkler Pipes.

During grooving process, the weld bead causes measurement deviations and errors in grooved area. Such deflections may cause the seal not to be fully seated, the clamps not being fully tightened, or even leakages. Firesist grooved fire sprinkler pipes provide perfect connection and combination during assembly and also fully compatible with Victaulic and Atusa standards.

Firesist Sprinkler Pipes have perfect roundness.

When all pipes are connected to each other, perfect alignment occurs and there is no weld gap to be filled. Fast, comfortable and secure pre-weld preparation is done. It is easy to make butt-welding and it saves labor, time and cost.

Special Procedures Applied On Request

- Customized pipe length
- Production of special steel grades/qualities
- Inner / Outer Epoxy Coating
- Sandblasting and Primer Coating
- Outer PE (polyethylene) Coating
- Galvanization
- Grooving

Advantages Of Firesist Sprinkler Pipes

- UL and FM approved in EN standards
- UL and FM approved in ASTM A53 and A795 standards.
- It can be produced as black bare, primer coated (black, gray and red colors) and galvanized.
- The red primer has high adhesion and it is resistant to corrosion, water and oil.
- With options of Plain End, Threaded & Coupled or Grooved.
- Weld bead can be removed upon request.
- CE certified.

About Borusan Mannesmann

- 6 World-Class facilities in Turkey, US and Italy
- Perfect Product Quality with Lean 6 Sigma Production Technique
- Wide Product Range with High Quality
- Exceeding Limits with Continuous R&D
- Excellent Service with Voice Of Customer Process
- Well established sales organization
- Export to more than 35 countries
- UL and C-UL listed, FM approved, NSF and DVGW certified
- Integrated Delivery Services

ASTM FM & UL

	Nominal Sizes (inch)	OD (mm)	Wall Thickness (inch)	Wall Thickness (mm)	Weight (lb/ft)	Weight (kg/mt PE)	FM	UL
Light Wall	1	33,4	0.102	2,60	1,34	1,99	✓	
	1 1/4	42,2	0.091	2,30	1,53	2,27	✓	
	1 1/4	42,2	0.102	2,60	1,71	2,55	✓	
	1 1/2	48,3	0.102	2,60	1,97	2,93	✓	
	2	60,3	0.114	2,90	2,76	4,10	✓	
	2 1/2	73	0.114	2,90	3,52	5,23	✓	
	3	88,9	0.126	3,20	4,54	6,76	✓	
	4	114,3	0.142	3,60	6,60	9,83	✓	
	5	141,3	0.134	3,40	7,68	11,43	✓	
SCH 7	1	33,4	0.079	2,00	1,05	1,56	✓	
	1 1/4	42,2	0.079	2,00	1,34	1,99	✓	
	1 1/2	48,3	0.084	2,13	1,53	2,28	✓	
	2	60,3	0.084	2,13	1,93	2,88	✓	
	2 1/2	73	0.086	2,18	2,67	3,97	✓	
	3	88,9	0.093	2,36	3,38	5,04	✓	
	4	114,3	0.108	2,60	4,81	7,16	✓	
SCH 10	3/4''	26,7	0.083	2,11	0,86	1,28		✓
	1''	33,4	0.109	2,77	1,41	2,09	✓	✓
	1 1/4''	42,2	0.109	2,77	1,81	2,69	✓	✓
	1 1/2''	48,3	0.109	2,77	2,09	3,11	✓	✓
	2''	60,3	0.109	2,77	2,64	3,93	✓	✓
	2 1/2''	73	0.120	3,05	3,53	5,26	✓	✓
	3''	88,9	0.120	3,05	4,34	6,46	✓	✓
	3 1/2''	101,6	0.120	3,05	4,98	7,41	✓	✓
	4''	114,3	0.120	3,05	5,62	8,37	✓	✓
	5''	141,3	0.134	3,4	7,78	11,58	✓	✓
	6''	168,3	0.134	3,4	9,30	13,85	✓	✓
	8''	219,1	0.188	4,78	16,96	25,26	✓	✓
	10''	273,1	0.188	4,78	21,23	31,62	✓	✓
	12''	323,8	0.188	4,78	25,28	37,61	✓	
SCH 30	1''	33,4	0.114	2,9	1,46	2,18	✓	
	1 1/4''	42,2	0.117	2,97	1,93	2,87	✓	
	1 1/2''	48,3	0.125	3,18	2,37	3,53	✓	
	2''	60,3	0.125	3,18	3,00	4,48	✓	
	2 1/2''	73	0.188	4,78	5,40	8,04	✓	
	3''	88,9	0.188	4,78	6,65	9,92	✓	
	3 1/2''	101,6	0.188	4,78	7,65	11,41	✓	
	4''	114,3	0.188	4,78	8,66	12,91	✓	
	8''	219,1	0.277	7,04	24,70	36,81	✓	
	10''	273,1	0.307	7,8	34,24	51,03	✓	
	12''	323,8	0.33	8,38	43,77	65,20	✓	
SCH 40	1/2''	21,3	0.109	2,77	0,85	1,27	✓	✓
	3/4''	26,7	0.113	2,87	1,13	1,69	✓	✓
	1''	33,4	0.133	3,38	1,68	2,50	✓	✓
	1 1/4''	42,2	0.140	3,56	2,27	3,39	✓	✓
	1 1/2''	48,3	0.145	3,68	2,72	4,05	✓	✓
	2''	60,3	0.154	3,91	3,66	5,45	✓	✓
	2 1/2''	73	0.203	5,16	5,80	8,64	✓	✓
	3''	88,9	0.216	5,49	7,58	11,29	✓	✓
	3 1/2''	101,6	0.226	5,74	9,12	13,58	✓	✓
	4''	114,3	0.237	6,02	10,80	16,09	✓	✓
	5''	141,3	0.258	6,55	14,63	21,79	✓	✓
	6''	168,3	0.280	7,11	18,99	28,29	✓	✓
	8''	219,1	0.322	8,18	30,45	45,34	✓	✓
	10''	273,1	0.365	9,27	40,52	60,29	✓	✓
SCH 80	1/2''	21,3	0.147	3,73	1,09	1,62	✓	
	3/4''	26,7	0.154	3,91	1,47	2,20	✓	
	1''	33,4	0.179	4,55	2,19	3,25	✓	
	1 1/4''	42,2	0.191	4,85	3,03	4,49	✓	
	1 1/2''	48,3	0.200	5,08	3,65	5,39	✓	
	2''	60,3	0.218	5,54	5,08	7,55	✓	
	2 1/2''	73	0.276	7,01	7,75	11,52	✓	
	3''	88,9	0.300	7,62	10,35	15,39	✓	
	3 1/2''	101,6	0.318	8,08	12,67	18,82	✓	
	4''	114,3	0.337	8,56	15,20	22,60	✓	
	5''	141,3	0.375	9,52	21,04	31,42	✓	
	6''	168,3	0.432	10,97	28,88	43,05	✓	
	8''	219,1	0.500	12,70	44,00	65,41	✓	

EN FM & UL

	OD (mm)	Wall Thickness (mm)	FM	UL
Light Wall	33,7	2,0	✓	
	33,7	2,6	✓	
	42,4	2,0	✓	
	42,4	2,3	✓	
	42,4	2,6	✓	
	48,3	2,0	✓	
	48,3	2,6	✓	
	60,3	2,0	✓	
	60,3	2,9	✓	
	76,1	2,18	✓	
	76,1	2,9	✓	
	88,9	2,36	✓	
	88,9	3,2	✓	
	114,3	2,6	✓	
	114,3	3,6	✓	
	139,7	3,4	✓	

	OD (mm)	Wall Thickness (mm)	FM	UL
EN 10255 Medium	33,7	3,2	✓	
	42,4	3,2	✓	✓
	48,3	3,2	✓	✓
	60,3	3,6	✓	✓
	76,1	3,6	✓	✓
	88,9	4,0	✓	✓
	114,3	4,5	✓	✓
	139,7	5,0	✓	✓
	165,1	5,0	✓	✓

	OD (mm)	Wall Thickness (mm)	FM	UL
EN 10255 Heavy	21,3	3,2	✓	
	26,9	3,2	✓	
	33,7	4,0	✓	
	42,4	4,0	✓	
	48,3	4,0	✓	
	60,3	4,5	✓	
	76,1	4,5	✓	
	88,9	5,0	✓	
	114,3	5,4	✓	
	139,7	5,4	✓	
	165,1	5,4	✓	

Technical Specifications

- Roll Grooved
- FM Approved
- UL/C-UL Listed
- NFS Certified
- Custom Length Availability
- ASTM A 53 / A 795 and EN production standards
- Tight tolerances
- Consistent roundness
- Consistent wall thickness
- Consistent straightness
- Weldable
- Pressure Tested
- Reliable high steel quality
- Galvanised or shop primer coated black, red (RAL 3000, RAL 3002 and RAL 3009) or grey (RAL 7012)
- CE, PED Certified

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BORUSAN COMPANY

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FIRESIST®
FIRE SPRINKLER PIPES

Borusan Mannesmann UL, C-UL listed and FM Approved Firesist Sprinkler Pipes are available according to ASTM A53 / A795 and EN standards.

- Red painted (RAL 3000, RAL 3002 and RAL 3009), Grey painted (RAL 7012) galvanised (up to 6") and self color.
- Plain ends, grooved (Victaulic and Atusa) or threaded & coupled.
- Inside weld bead is removed for grooved pipes (1" and above)
- CE approved.

Firesist® FIRE PROTECTION SYSTEMS

BORUSAN MANNESMANN