

**SPECIFICATION FOR STANDARD SIZES FROM ASTM A795  
SCHEDULE-10 FOR BLACK AND GALVANIZED PIPES**

Size		OD min		OD max		WALL THICKNESS		WEIGHT OF TUBE ( Plain end )		PRESSURE GR-A	PIECES PER BUNDLE
NPS	DN	INCH	MM	INCH	MM	INCH	MM	lb/Ft.	kg/M	PSI	
3/4	20	1,034	26,3	1,066	27,1	0,083	2,11	0,87	1,28	700	84
1	25	1,299	33,0	1,331	33,8	0,109	2,77	1,41	2,09	700	60
1 1/4	32	1,644	41,8	1,676	42,6	0,109	2,77	1,81	2,69	1000	42
1 1/2	40	1,884	47,9	1,916	48,7	0,109	2,77	2,09	3,11	1000	36
2	50	2,351	59,7	2,399	60,9	0,109	2,77	2,64	3,93	1000	26
2 1/2	65	2,846	72,3	2,904	73,8	0,120	3,05	3,53	5,26	1000	18
3	80	3,465	88,0	3,535	89,8	0,120	3,05	4,34	6,46	1000	18
3 1/2	90	3,960	100,6	4,040	102,6	0,120	3,05	4,98	7,41	1200	14
4	100	4,455	113,2	4,545	115,4	0,120	3,05	5,62	8,37	1200	12
5	125	5,507	139,9	5,619	142,7	0,134	3,40	7,78	11,58	1200	10
6	150	6,559	166,6	6,691	170,0	0,134	3,40	9,30	13,85	1000	5 or 7
8	200	8,539	216,9	8,711	221,3	0,180	4,57	16,96	25,26	800	5 or 7
10	250	10,643	270,3	10,858	275,8	0,180	4,57	21,23	31,62	700	5

**Table 1 - Size, weight, pressure and bundle types of ASTM A795 pipes.**

## CORROSION RESISTANCE RATIOS FOR ASTM A795 Sch 10 SIZES

Size mm - Nps	CRR*
26,7 mm – ¾	10,12
33,4 mm – 1	9,67
42,2 mm – 1 ¼	8,37
48,3 mm – 1 ½	6,67
60,3 mm – 2	5,41
73 mm – 2 ½	4,14
88,9 mm – 3	3,00
114,3 mm – 4	1,84
141,3 mm – 5	1,73
168,3 mm – 6	1,19
219,1 mm - 8	1,83
273,1 mm -10	1,10

\*Note: These values are only theoretical, for real results laboratory tests should be applied.

\*Calculated using Standard UL CRR formula, UL Fire Protection Directory, Category VIZY

### UL PRODUCT CATEGORY

Schedule 10 steel pipe in the ¾, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8 and 10 in. size.

### FM PRODUCT CATEGORY

Schedule 10 steel pipe in the 1, 1 ¼, 1 ½, 2, 2 ½, 3, 3 ½, 4, 5, 6, 8 in. size.

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**1- Chemical Composition**

	Composition, max, %			
	C	Mn	P	S
<b>Type E (electric-resistance-welded pipe) &amp; Type S (seamless pipe)</b>				
Open-hearth, electric-furnace or basic-oxygen:				
Grade A	0.25	0.95	0.035	0.035
Grade B	0.30	1.20	0.035	0.035

**2- Mechanical Properties**

**Tensile Tests:**

Yield Strenght (Rt <sub>0.2</sub> ):	Min. 240 N/mm2	Min. 205 N/mm2
Tensile Strenght:	Min. 415 N/mm2	Min 330 N/mm2

Grade B

Grade A

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**3- Flattening Test**

Flatten a specimen at least 4 in. [100 mm] in length cold between paralleled plates in three steps with the weld located either 0 or 90° from the line of direction of force. During the first step, a test for ductility of the weld, no cracks or breaks on the inside or outside surfaces shall occur until the distance between the plates is less than two thirds of the original outside diameter of the pipe. As a second step, continue the flattening.

During the second step, a test for the ductility exclusive of the weld, no cracks or breaks on the inside or outside surfaces shall occur until the distance between the plates is less than one third of the original outside diameter of the pipe, but is not less than five times the wall thickness of the pipe. During the third step, a test for soundness, continue the flattening until the specimen breaks or the opposite walls of the specimen meet. Evidence of laminated or unsound material or of incomplete weld that is revealed during the entire flattening test shall be cause for rejection.

**4- Dimensional Controls Tolerances**

Wall Thickness	-%12,5 X WT
Outside Diameter	For D ≤ 40 mm OD shall not vary more than 0,4 mm For D ≥ 50 mm OD shall not vary more than ±%1 from the specified outside diameter.
Pipe Length	Unless otherwise specified, pipe shall be furnished in single random lengths of 16 to 22 ft( 4,9 to 6,7 m). Tolerance is +50 -0 mm
Pipe Straightness	The pipe shall be reasonably straight.
Weight	Weight shall not vary more than ±%5 of table 1.
Pipe Ends	Unless otherwise specified, each end of pipe shall be furnished plain end.

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**5- NDT Tests**

Hydrostatic Test	Test pressure acc. Table 1 of this statement.
E/C or UT	Acc. To A795 Clause 9.

**6- Galvanization**

Pipes are demanded as galvanized, the process shall be applied acc. to A795 clause 11 .  
 Weight (Mass) per Unit Area of Coating—The weight of the zinc coating shall not be less than 1.5 oz/ft<sup>2</sup> [0.46 kg/m<sup>2</sup>] as determined from the average of two specimens tested not less than 1.3 oz/ft<sup>2</sup> [0.40 kg/m<sup>2</sup>] for either of the specimens. The weight of coating expressed in ounces per square foot or kilograms per square metre shall be calculated by dividing the total weight of zinc, inside plus outside, by total area, inside plus outside, of the surface coated.

**7- Threading**

If threads are specified, all threads shall be in accordance with the gaging practice and tolerances of ASME B1.20.1.

**8-Varnish**

Pipes are temporary varnished externally over the full length.

**9- Packaging & Marking**

Packaging & marking shall be applied acc. to A795 and customer request.  
 Marking shall be applied by continuous stenciling.  
 Packing shall be applied according to table 1 of this statement.

**10- MTC (Mill Test Certificate)**

Pipes are supplied comply with a MTC according to ASTM A795.