

ASTM A795 seamless steel pipe

ASTM A795 seamless steel pipe from TPMC is manufactured by piercing solid billets using the advanced PQF process, ensuring a uniform, seamless structure with exceptional strength and reliability. It features tight dimensional tolerances to ensure excellent compatibility with precision fittings and grooved connections. Available in SCH10 for cost-effective branch lines and SCH40 for mains, risers, or high-durability needs, our TPMC pipe provides reliable performance in wet, dry, deluge, and preaction fire protection systems.



- Certificate: ISO
- Standard: ASTM A795 Type S Grade B / UL 852 / NFPA 13 / NFPA 14
- Length: 6m / 5.8m / 11.8m / 12m / 20ft, etc.
- End: Plain: square cut
Beveled: 37.5° angle per ASME B16.25
Roll-grooved: per AWWA C606
Threaded (NPT): per ASME B1.20.1
Threaded (BSPT): per ISO 7-1 / BS 21
- Surface: FBE / polyester resin powder
Water-based red or black paint
Hot-dip galvanized / duplex coating
Plastic lining (PE, UPVC, etc.)

Available sizes for Schedule 10 pipe (Light-weight)

Outside diameter			Wall thickness		Weight	Test pressure	Ref. No.
NPS	DN	OD (mm)	Schedule No.	T (mm)	kg/m	MPa, min	
3/4"	20	26.7	SCH10	2.11	1.28	4.8	P2202-SCH10 (ISO)
1"	25	33.4	SCH10	2.77	2.09	4.8	P2203-SCH10 (ISO)
1-1/4"	32	42.2	SCH10	2.77	2.69	6.9	P2204-SCH10 (ISO)
1-1/2"	40	48.3	SCH10	2.77	3.11	6.9	P2205-SCH10 (ISO)
2"	50	60.3	SCH10	2.77	3.93	6.9	P2206-SCH10 (ISO)
2-1/2"	65	73.0	SCH10	3.05	5.26	6.9	P2207-SCH10 (ISO)
3"	80	88.9	SCH10	3.05	6.46	6.9	P2208-SCH10 (ISO)
4"	100	114.3	SCH10	3.05	8.37	8.3	P2209-SCH10 (ISO)
5"	125	141.3	SCH10	3.40	11.58	8.3	P2210-SCH10 (ISO)
6"	150	168.3	SCH10	3.40	13.85	6.9	P2211-SCH10 (ISO)
8"	200	219.1	/	4.78	25.26	5.5	P2212-SCHXX (ISO)
10"	250	273.1	/	4.78	31.62	4.8	P2213-SCHXX (ISO)

Note: For NPS 8" and NPS 10", the nominal wall thickness tabulated in ASTM A795-2021 is 4.78 mm, which differs from ASME B36.10-2022 SCH10 (NPS 8": 3.76 mm; NPS 10": 4.19 mm). A795 uses a custom/engineered thickness for these sizes.

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Available sizes for Schedule 40 pipe (Standard-weight)

Outside diameter			Wall thickness		Weight	Test pressure	Ref. No.
NPS	DN	OD (mm)	Schedule No.	T (mm)	kg/m	MPa, min	
1/2"	15	21.3	SCH40	2.77	1.27	4.8	P2201-SCH40 (ISO)
3/4"	20	26.7	SCH40	2.87	1.69	4.8	P2202-SCH40 (ISO)
1"	25	33.4	SCH40	3.38	2.50	4.8	P2203-SCH40 (ISO)
1-1/4"	32	42.2	SCH40	3.56	3.39	6.9	P2204-SCH40 (ISO)
1-1/2"	40	48.3	SCH40	3.68	4.05	6.9	P2205-SCH40 (ISO)
2"	50	60.3	SCH40	3.91	5.45	6.9	P2206-SCH40 (ISO)
2-1/2"	65	73.0	SCH40	5.16	8.64	6.9	P2207-SCH40 (ISO)
3"	80	88.9	SCH40	5.49	11.29	6.9	P2208-SCH40 (ISO)
4"	100	114.3	SCH40	6.02	16.09	8.3	P2209-SCH40 (ISO)
5"	125	141.3	SCH40	6.55	21.79	8.3	P2210-SCH40 (ISO)
6"	150	168.3	SCH40	7.11	28.29	8.3	P2211-SCH40 (ISO)
8"	200	219.1	SCH30	7.04	36.82	8.3	P2212-SCH30 (ISO)
10"	250	273.1	SCH30	7.80	51.05	6.9	P2213-SCH30 (ISO)

Note: For NPS 8" and NPS 10", the nominal wall thickness tabulated in ASTM A795-2021 aligns with ASME B36.10-2022 SCH30 (not SCH40: NPS 8": 8.18 mm; NPS 10": 9.27 mm).

Chemical composition (%) per ASTM A795 Type S Grade B

C	Mn	P	S
≤ 0.30	≤ 1.20	≤ 0.035	≤ 0.035

Mechanical properties per ASTM A795 Type S Grade B

Tensile strength	Yield strength	Longitudinal elongation
≥ 60000 psi (415 MPa)	≥ 35000 psi (240 MPa)	20% ~ 30%

Note: ASTM A795 does not specify numerical mechanical requirements. TPMC references ASTM A53 Type S Grade B for the typical values listed above.

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Standard requirements

- Flattening test: Not required (applies only to welded pipe).
- Hydrostatic test: Each pipe is subjected to a hydrostatic test at the specified pressure, with no leakage through the pipe wall.

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Nondestructive electric test (NDE)

- As an alternative to the hydrostatic test and when accepted by the purchaser, each pipe may be examined using nondestructive electric test (NDE) in accordance with any of the following Practices:
ASTM E213 (ultrasonic),
ASTM E309 (eddy current),
ASTM E570 (flux leakage).



Dimensional tolerances

- Outside diameter: $\pm 1/64"$ (0.41 mm) for NPS $\leq 1-1/2"$, $\pm 1\%$ for NPS $\geq 2"$.
- Wall thickness: Minimum not more than 12.5% under nominal (no upper limit).
- Cut length: $+1/4"$ (6.4 mm) / $-0"$ per ASTM A530 (for specified length).
- Weight: $\pm 5\%$; measured per bundle for NPS $\leq 4"$, per individual length for NPS $> 4"$.



Other quality assurance

- Straightness: Reasonably straight.
- Coating inspection: DFT and adhesion (see TPMC PA11-PA51).
- Marking: Legibly marked per standard (see TPMC PA71).
- Packaging: End protection, bundling, and shipping marks (see TPMC PA81).
- Test certificate: Issued by TPMC with full traceability to MTC/MTR.