ASTM A53 Pipe

OMEGA STEEL CO.
Istanbul · Dilovası plant

ASTM A53 is the American standard for general-purpose black and galvanized steel pipe — the "sch 40 pipe" of US-designed projects in the Gulf, Africa and the Caucasus: fire-fighting, plumbing, compressed air, low-pressure steam, structural and mechanical use. We supply A53 Grade B in Type E (electric-resistance welded) and Type S (seamless), ½"–24" NPS in schedule 40 and 80 (STD / XS), plain, bevelled or threaded-and-coupled ends, black or hot-dip galvanized, from Turkish mills certified to the standard.

A53 Grade B | Type E (ERW) · Type S (seamless) | ½"–24" NPS | Sch 40 / 80 | Black or galvanized

When the specification comes from a US engineering house, the pipe is A53 Grade B sch 40 — not EN 10255 M, not EN 10219 — and the inspector wants the A53 certificate. Turkish ERW mills are certified to it, and we supply it with the mill test report the spec calls for.

ERW PIPE — NPS, OD, WALL AND WEIGHT

NPS	OD (mm)	Wall (mm)	kg/m	kg per 6 m
½"	21.3	1.5	0.73	4.39
½"	21.3	1.9	0.91	5.45
½"	21.3	2	0.95	5.71
½"	21.3	2.5	1.16	6.95
¾"	26.9	1.5	0.94	5.64
¾"	26.9	1.9	1.17	7.03
¾"	26.9	2	1.23	7.37
¾"	26.9	2.4	1.45	8.7
¾"	26.9	2.5	1.5	9.02
¾"	26.9	3	1.77	10.61
1"	33.7	1.5	1.19	7.15
1"	33.7	1.9	1.49	8.94
1"	33.7	2	1.56	9.38
1"	33.7	2.4	1.85	11.11

First 14 of 108 rows — the full table is on the product page.

EN 10219 / EN 10255 / ASTM A53 dimensions; plain or bevelled ends; 6 m standard, 12 m on request.

GRADES, STANDARDS AND TOLERANCES

Grade / standard	Yield (MPa)	Note
A53 Grade B (Type E / S)	240 (35 ksi)	the specified grade; tensile ≥ 415 MPa
A53 Grade A	205 (30 ksi)	lighter duty, Type F / E
A106 Grade B (seamless)	240	high-temperature service; often dual-certified with A53 B Type S
API 5L Grade B	241	line pipe; dual-certified on seamless
EN 10255 S195T / EN 10219 S235JRH	195 / 235	European equivalents in the same sizes

A53 Grade B chemistry: C ≤ 0.30, Mn ≤ 1.20, P ≤ 0.05, S ≤ 0.045 (plus Cu, Ni, Cr, Mo, V limits). Design per ASME B31.1 / B31.3 / B31.9.

A53 VS A106 VS EN 10255 / EN 10219

Standard	Process	Grade / yield	Service	Ends	Note
ASTM A53 Gr B Type E	ERW, seam heat-treated	240 MPa	general: water, air, steam, gas, structural	plain / bevel / T&C	the volume product
ASTM A53 Gr B Type S	seamless	240 MPa	as above + higher pressure	plain / bevel	often dual A106 B
ASTM A106 Gr B	seamless only	240 MPa	high temperature (to 425 °C+)	plain / bevel	Si ≥ 0.10, killed
ASTM A795	ERW / seamless	205–240 MPa	fire-protection sprinkler	grooved / threaded	sch 10 / 40
API 5L Gr B	ERW / seamless	241 MPa	oil and gas lines	bevel	PSL1 / PSL2
EN 10255 M / H	ERW / seamless	195 MPa	water, gas (threading)	plain / threaded	European equivalent
EN 10219 S235JRH	ERW	235 MPa	structural	plain	not for pressure

Same NPS × schedule dimensions across the ASTM standards (ASME B36.10M); EN sizes are OD × wall and coincide with most schedules.

SCH 40 AND SCH 80 DIMENSIONS AND WEIGHTS

NPS	OD (mm)	Sch 40 wall (mm)	Sch 40 kg/m	Sch 80 wall (mm)	Sch 80 kg/m
½"	21.3	2.77	1.27	3.73	1.62

NPS	OD (mm)	Sch 40 wall (mm)	Sch 40 kg/m	Sch 80 wall (mm)	Sch 80 kg/m
¾"	26.7	2.87	1.69	3.91	2.20
1"	33.4	3.38	2.50	4.55	3.24
1½"	48.3	3.68	4.05	5.08	5.41
2"	60.3	3.91	5.44	5.54	7.48
3"	88.9	5.49	11.29	7.62	15.27
4"	114.3	6.02	16.07	8.56	22.32
6"	168.3	7.11	28.26	10.97	42.56
8"	219.1	8.18	42.55	12.70	64.64
10"	273.1	9.27	60.31	12.70	81.55
12"	323.9	10.31	79.73	12.70	97.46

Sch 40 = STD and sch 80 = XS up to 10"; above 12" STD is 9.53 mm and XS 12.70 mm regardless of schedule.

STANDARDS

ASTM A53 / A53M — pipe, steel, black and hot-dipped, zinc-coated, welded and seamless · ASME B36.10M dimensions; ASME B1.20.1 NPT threads · ASTM A123 / A53 zinc coating; ASTM A733 nipples · EN 10204 3.1 (A53 mill test report)