

Lampiran 4 Spesifikasi Material Pipa Komersial

Table 402.3.1(a)

ASME B31.4a-2001

A01

TABLE 402.3.1(a)
TABULATION OF EXAMPLES OF ALLOWABLE STRESSES FOR REFERENCE USE IN PIPING
SYSTEMS WITHIN THE SCOPE OF THIS CODE

Specification	Grade	Specified Min. Yield Strength, psi (MPa)	Weld Joint Factor <i>E</i>	Allowable Stress Value <i>S</i> , -20°F to 250°F (-30°C to 120°C), psi (MPa)
Seamless				
API 5L	A25	25,000 (172)	1.00	18,000 (124)
API 5L, ASTM A 53, ASTM A 106	A	30,000 (207)	1.00	21,600 (149)
API 5L, ASTM A 53, ASTM A 106	B	35,000 (241)	1.00	25,200 (174)
API 5L	X42	42,000 (289)	1.00	30,250 (208)
API 5L	X46	46,000 (317)	1.00	33,100 (228)
API 5L	X52	52,000 (358)	1.00	37,450 (258)
API 5L	X56	56,000 (386)	1.00	40,300 (278)
API 5L	X60	60,000 (413)	1.00	43,200 (298)
API 5L	X65	65,000 (448)	1.00	46,800 (323)
API 5L	X70	70,000 (482)	1.00	50,400 (347)
API 5L	X80	80,000 (551)	1.00	57,600 (397)
ASTM A 106	C	40,000 (278)	1.00	28,800 (199)
ASTM A 333	6	35,000 (241)	1.00	25,000 (174)
ASTM A 524	I	35,000 (241)	1.00	25,200 (174)
ASTM A 524	H	30,000 (207)	1.00	21,600 (149)
Furnace Butt Welded, Continuous Welded				
ASTM A 53	...	25,000 (172)	0.60	10,800 (74)
API 5L Classes I and II	A25	25,000 (172)	0.60	10,800 (74)
Electric Resistance Welded and Electric Flash Welded				
API 5L	A25	25,000 (172)	1.00	18,000 (124)
API 5L, ASTM A 53, ASTM A 135	A	30,000 (207)	1.00	21,600 (149)
API 5L, ASTM A 53, ASTM A 135	B	35,000 (241)	1.00	25,200 (174)
API 5L	X42	42,000 (289)	1.00	30,250 (208)
API 5L	X46	46,000 (317)	1.00	33,100 (228)
API 5L	X52	52,000 (358)	1.00	37,450 (258)
API 5L	X56	56,000 (386)	1.00	40,300 (279)
API 5L	X60	60,000 (413)	1.00	43,200 (297)
API 5L	X65	65,000 (448)	1.00	46,800 (323)
API 5L	X70	70,000 (482)	1.00	50,400 (347)
API 5L	X80	80,000 (551)	1.00	57,600 (397)
ASTM A 333	6	35,000 (241)	1.00	25,000 (174)

Sumber : ASME B31.4a-2001