

Summary of differences PSL 1 and PSL 2 (Based on API 5L Edition 43)

Parameter	PSL 1	PSL 2	Ref: API 5L 43rd Edition
Grade range	A25 through X70	B through X80	Table 1
Size range	0.405" through 80"	4.5" through 80"	Table 1
Type of ends	Plain end, Threaded end, Bevelled end special coupling pipe	Plain end	Table 1
Seam welding	All methods: continuous welding limited to A25	All methods: except continuous welding and laser welding	Table 1
Electric welds: welder frequency	No minimum	kHz minimum 100	5.1.3.3.2
Heat treatment of electric welds	Required for grades >X42	Required for all grades (B through X80)	5.1.3.3.1; 5.1.3.3.2; 6.2.7
Chemistry: Max C for Seamless pipe	0.28% for grades $\geq$ B	0.24%	Tables 2A, 2B
Chemistry: Max C for Welded pipe	0.26% for grades $\geq$ B	0.22%	Tables 2A, 2B
Chemistry: Max P	0.030% for grades $\geq$ A	0.03%	Tables 2A, 2B
Chemistry: Max S	0.03%	0.02%	Tables 2A, 2B
Carbon equivalent:	Only when purchaser specifies SR18	Maximum required for each grade	4.2; 4.3; 6.1.3; SR15.1
Yield strength, maximum	None	Maximum for each grade	Tables 3A, 3B
UTS (Ultimate Tensile Strength) maximum	None	Maximum for each grade	Tables 3A, 3B
Fracture toughness	None required	Required for all grades	6.2.6; 9.3.5; 9.8.4; 9.10.7; Table 14
Non-destructive inspection of Seamless	Only when purchaser specifies SR4	SR4 mandatory	9.7.2.6
Repair by welding of pipe body plate, and skelp	Permitted	Prohibited	5.3.2; 9.7.6; B.1; B.2
Repair by welding of weld seams without filler metal	Permitted by agreement	Prohibited	4.3; 9.7.4.4; 9.7.6; B.1.1; B.4
Certification	Traceable only until all tests are passed	Certificates (SR15.1) mandatory	12.1
Traceability	Traceable only until all tests are passed unless SR15 is specified	Traceable after completion of tests (SR15.2) mandatory	5.6