

ASTM-A234-WPB



ASTM 234 Grade and Marking Symbol	(ASTM A234 steel pipe fittings) Chemical Composition, %						
	C	Mn	P	S	Si	Cr	Mo
WPB	0.30 max	0.29-1.06	0.05	0.058	0.10 min	0.40 max	0.15 max
WPC	0.35 max	0.29-1.06	0.05	0.058	0.10 min	0.40 max	0.15 max
WP1	0.28 max	0.30-0.90	0.045	0.045	0.10-0.50	...	0.44-0.65
WP12 CL1, WP12 CL2	0.05-0.20	0.30-0.80	0.045	0.045	0.60 max	0.80-1.25	0.44-0.65
WP11 CL1	0.05-0.15	0.30-0.60	0.03	0.03	0.50-1.00	1.00-1.50	0.44-0.65
WP11 CL2, WP11 CL3	0.05-0.20	0.30-0.80	0.04	0.04	0.50-1.00	1.00-1.50	0.44-0.65
WP22 CL1, WP22 CL3	0.05-0.15	0.30-0.60	0.04	0.04	0.50 max	1.90-2.60	0.87-1.13
WP5 CL1, WP5 CL3	0.15 max	0.30-0.60	0.04	0.03	0.50 max	4.0-6.0	0.44-0.65
WP9 CL1, WP9 CL3	0.15 max	0.30-0.60	0.03	0.03	1.00 max	8.0-10.0	0.90-1.10
WPR	0.20 max	0.40-1.06	0.045	0.05	...	...	...
WP91	0.08-0.12	0.30-0.60	0.02	0.01	0.20-0.50	8.0-9.5	0.85-1.05
WP911	0.09-0.13	0.30-0.60	0.02	0.01	0.10-0.50	8.5-9.5	0.90-1.10