

API-5L Steel Pipe for Pipeline Transportation System (API 5L 45<sup>th</sup> edition)

Spec	Applicable Thickness (mm)	Chemical Composition (%) -Max											Tensile Test			
		C <sup>b</sup>	Si	Mn <sup>b</sup>	P	S	V	Nb	Ti	Other	Ceq	Pcm	Yield Point (MPa)	Tensile Strength (MPa)	Max Yield Ratio	Min. Elongation (%)
API-B PSL 1	6-50	0.26	-	1.2	0.03	0.03	b	b	b	b	-	-	245	415	-	$A1 = C \frac{A_{0.2}}{U^9}$
API-X42 PSL 1	6-50	0.26	-	1.3	0.03	0.03	b	b	b	b	-	-	290	415	-	
API-X46 PSL 1	6-50	0.26	-	1.4	0.03	0.03	b	b	b	b	-	-	320	435	-	
API-X52 PSL 1	6-50	0.26	-	1.4	0.03	0.03	b	b	b	b	-	-	360	460	-	
API-BR PSL 2	6-50	0.24	0.4	1.2	0.025	0.015	b	b	0.04	b	0.43	0.25	245-450	415-655	0.93	
API-X42R PSL 2	6-50	0.24	0.4	1.2	0.025	0.015	0.06	0.05	0.04	b	0.43	0.25	290-495	415-655	0.93	
a) Need further discussion for other thickness																
b) The chemical composition can be different from the list based on API 5L standard or customer requirement																

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API-X42M PSL 2	6-50	0.22	0.45	1.4	0.025	0.015	0.05	0.05	0.05	b	0.43	0.25	290-495	415-655	0.93	$A1 = C \frac{A_{0.2}}{U^9}$
API-X46M PSL 2	6-50	0.22	0.45	1.4	0.025	0.015	0.05	0.05	0.05	b	0.43	0.25	320-525	435-655	0.93	
API-X52M PSL 2	6-50	0.22	0.45	1.4	0.025	0.015	b	b	b	b	0.43	0.25	360-530	460-760	0.93	
API-X56M PSL 2	6-50	0.22	0.45	1.4	0.025	0.015	b	b	b	b	0.43	0.25	390-545	490-760	0.93	
API-X60M PSL 2	10-50	0.12	0.45 <sup>b</sup>	1.6	0.025	0.015	b	b	b	b	0.43	0.25	415-565	520-760	0.93	
API-X65M PSL 2	10-35	0.12	0.45 <sup>b</sup>	1.6	0.025	0.015	b	b	b	b	0.43	0.25	450-600	535-760	0.93	
API-X70M PSL 2	10-25	0.12	0.45 <sup>b</sup>	1.7	0.025	0.015	b	b	b	b	0.43	0.25	485-635	570-760	0.93	
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		C <sup>b</sup>	Si	Mn <sup>b</sup>	P	S	V <sup>b</sup>	Nb <sup>b</sup>	Ti <sup>b</sup>	Other	Ceq	Pcm	Yield Point (MPa)	Tensile Strength (MPa)	Max Yield Ratio	Min. Elongation (%)
API-X42MO PSL 2	6-50	0.12	0.4	1.35	0.02	0.01	0.04	0.04	0.04	b	-	0.19	290-495	415-655	0.93	$A1 = C \frac{A_{0.2}}{U^9}$
API-X46MO PSL 2	6-50	0.12	0.45	1.35	0.02	0.01	0.05	0.05	0.04	b	-	0.2	320-520	435-655	0.93	
API-X52MO PSL 2	6-50	0.12	0.45	1.65	0.02	0.01	0.05	0.05	0.04	b	-	0.2	360-525	460-760	0.93	
API-X56MO PSL 2	6-50	0.12	0.45	1.65	0.02	0.01	0.06	0.08	0.04	b	-	0.21	390-540	490-760	0.93	
API-X60MO PSL 2	10-50	0.12	0.45 <sup>b</sup>	1.65	0.02	0.01	0.08	0.08	0.06	b	-	0.21	415-565	520-760	0.93	
API-X65MO PSL 2	10-35	0.12	0.45 <sup>b</sup>	1.65	0.02	0.01	0.1	0.08	0.06	b	-	0.22	450-570	535-760	0.93	
API-X70MO PSL 2	10-25	0.12	0.45 <sup>b</sup>	1.75	0.02	0.01	0.1	0.08	0.06	b	-	0.22	485-605	570-760	0.93	
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