

API 5L Grade X65 Pipe Chemical Composition and Mechanical Properties

Chemical Composition				
Steel grade (Steel name)	Mass fraction, based upon heat and product analyses			
	%			
	C	Mn	P	S
	max	max	max	max
PSL 1 pipe with $t \leq 25.0$ mm (0.984 in)				
Seamless pipe				
X65	0.28	1.40	0.030	0.030
Welded pipe				
X65	0.26	1.45	0.030	0.030
PSL 2 pipe with $t \leq 25.0$ mm (0.984 in)				
Seamless pipe				
X65Q	0.18	1.70	0.025	0.015
Welded pipe				
X65M	0.12	1.60	0.025	0.015

Mechanical Properties					
Pipe grade	Pipe body of seamless and welded pipes				Weld seam of EW, LW, SAW and COW pipes
	Yield strength		Tensile strength		
	MPa (psi)		MPa (psi)		
API 5L X65 PSL 1 pipe					
X65	minimum		minimum		535 (77 600)
	450 (65 300)		535 (77 600)		
API 5L X65 PSL 2 pipe					
X65Q	minimum	maximum	minimum	maximum	
X65M	450 (65 300)	600 (87 000)	535 (77 600)	760 (110 200)	