

BS 3601-87 STEEL PIPES AND TUBES FOR PRESSURE PURPOSES CARBON STEEL WITH SPECIFIED ROOM TEMPERATURE PROPERTIES

Specification for carbon steel pipes and tubes with specified room temperature properties for pressure purposes.

Plain end, welded and seamless carbon steel tubes suitable for general pressure purposes.

Chemical Composition

Grade	Mfg. Process	Chemical Composition (%)								
		C	Si	Mn	P	S	Ni	Cr	Mo	Others
BW320	B	0.16Max	-	0.30~0.70	0.040Max	0.040Max	-	-	-	-
ERW320	E	0.16Max	-	0.30~0.70	0.040Max	0.040Max	-	-	-	-
ERW360	E	0.17Max	0.35Max	0.40~0.80	0.040Max	0.050Max	-	-	-	-
ERW430	E	0.21Max	0.35Max	0.40~1.20	0.040Max	0.040Max	-	-	-	-
S360	S	0.17Max	0.35Max	0.40~0.80	0.040Max	0.040Max	-	-	-	t 16mmMax 16mm< t 40mmMAX 40mm< t 65mmMax
S430	S	0.21Max	0.35Max	0.40~1.20	0.040Max	0.040Max	-	-	-	t 16mmMax 16mm< t 40mmMAX 40mm< t 65mmMax
SAW430	A	0.25Max	0.50Max	1.20Max	0.040Max	0.040Max	-	-	-	t 16mmMax 16mm< t 40mmMAX 40mm< t 65mmMax

Mechanical Properties

Grade	Tensile Test MPa or N/mm ²		Remarks (Similar to JIS)
	Min Yield point	Tensile Strength	
BW320	195	320~460	-
ERW320	195	320~460	-
ERW360	235	360~500	(STPG370)
ERW430	195	430~570	(STPG410)
S360	235	360~550	(STPG310)

	225 215		
S430	275 265 255	430~570	(STPG410)
SAW430	275 265 255	430~570	(STPY400)

Material Comparison Tables (ASTM, KS, JIS, DIN, BS, NBN, NF, UNI)

ASTM Standard	UNS NO.	KOREA/JAPANESE			GERMAN				BRITISH			BELGIAN			FRENCH			ITALIAN		
		KS/JIS Symbol	KS/JIS Number	Remarks	DIN Type	DIN Number	Material Number	Remarks	B.S. Number	B.S. Grade	Remarks	NBN Type	NBN Grade	Remarks	AFNOR Type	NF Number	Remarks	UNI Type	UNI Number	Remarks
A 53 Welded and Seamless Steel Pipe																				
Grade A	K02504	SPPS38 / STPG370	D3562 / G3454	(16)	St37.2	1626	1.0036	(18)Welded	3061	320	BW,S,ER	E 37.2	630	(2)(3b)(9)			(3)	Fe 35-1	663	
					St 35	1629	1.0308	(18)Seamless												
Grade B	K03005	SPPS42 / STPG410	D3562 / G3454	(16)	St45	1629	1.0408	(18)Seamless	3601	410	BW,S,ER	E 42.2	630	(2)(3b)(9)			(3)			(3)
					St42-2	1626	1.0040	(18)Welded												

JIS Number and Corresponding Foreign Standards

JIS			ASTM			BS			DIN			NF			ISO			Index Number
Standard Number	Grade	Type	Standard Number	Grade	Type	Standard Number	Grade	Type	Standard Number	Grade	Type	Standard Number	Grade	Type	Standard Number	Grade	Type	
G3454	STPG370 (STPG38)	C	A135	Gr A	C	3601	ERW360	C	1626	St37.0	C	A49-112	TS27b	C	559	TS4	C	C002
			A587	-	C	"	S360	C	1629	St37.0	C	A49-141	TS37a	C	2604/2	TS4	C	
									17172	StE210.7	C	A49-142	TS37a	C	2604/3	TW4	C	
												"	TS37b	C				

											A49-150	TSE235	C					
											A49-212	TS37c	C					
											A49-242	TS37c	C					
											A49-250	TAE24a	C					
											A49-400	TSE220	C					
	STPG410 (STPG42)	C	A135	GrB	C	3601	ERW410	C	1626	St44.0	C	A49-112	TS42b	C	559	TS9	C	
			A524	-	C	"	S410	C				A49-141	TS42b	C	2604/2	TW9	C	
												A49-212	TS42c	C	2604/3	TW9	C	
												A49-242	TS42c	C	3183	E24-1	C	
												A49-250	TSE26b	C	"	E24-2		
												A49-400	TSE250	C				

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