

ISO 2604/3-75 STEEL PRODUCTS FOR PRESSURE PURPOSE PART3 ELECTRIC RESISTANCE AND INDUCTION WELDED TUBES

1. Chemical Composition

Grade	Mfg. Process	Chemical Composition (%)								
		C	Si	Mn	P	S	Ni	Cr	Mo	Others
TW1	E	0.16Max	-	0.30~0.70	0.050Max	0.050Max	-	-	-	-
TW2	E	0.16Max	-	0.30~0.70	0.050Max	0.050Max	-	-	-	-
TW4	E	0.17Max	0.35Max	0.40~0.80	0.040Max	0.040Max	-	-	-	-
TW5	E	0.17Max	0.35Max	0.40~0.80	0.040Max	0.040Max	-	-	-	-
TW6	E	0.17Max	0.35Max	0.40~1.00	0.040Max	0.040Max	-	-	-	Al: 0.015Max
TW9	E	0.21Max	0.35Max	0.40~1.20	0.040Max	0.040Max	-	-	-	-
TW9H	E	0.21Max	0.35Max	0.40~1.20	0.045Max	0.045Max	-	-	-	-
TW10	E	0.19Max	0.35Max	0.60~1.20	0.045Max	0.045Max	-	-	-	Al: 0.015Max
TW13	E	0.22Max	0.35Max	0.60~1.40	0.045Max	0.045Max	-	-	-	-
TW14	E	0.22Max	0.35Max	0.80~1.40	0.045Max	0.045Max	-	-	-	-
TW15	E	0.20Max	0.35Max	0.80~1.40	0.045Max	0.045Max	-	-	-	Al: 0.015Max
TW26	E	0.12~0.20	0.10~0.35	0.40~0.80	0.040Max	0.040Max	-	-	0.25~0.35	Al: 0.012Max
TW38	E	0.10~0.18	0.10~0.35	0.40~0.70	0.040Max	0.040Max	-	0.70~1.10	0.45~0.65	Al: 0.020Max

2. Mechanical Properties

Grade	Tensile Test MPa or N/mm ²		Remarks (Similar to JIS)
	Min Yield point	Tensile Strength	
TW1	195	320~440	-
TW2	195	320~440	-
TW4	215	360~480	(STPG370)
TW5	215	360~480	(STPT370)
TW6	215	360~480	(STPL380) (STBL380)
TW9	235	410~530	(STPG410)
TW9H	235	410~530	(STPT410)

			(STPB410)
TW10	235	410~530	-
TW13	235	460~580	-
TW14	265	460~580	-
TW15	265	460~580	-
TW26	255	450~600	-
TW38	275	440~590	-

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				