

SAC

Sıcak Haddelenmiş Rulo Sacların Kimyasal Bileşimleri ve Mekanik Özellikleri

Specification Standartlar	Grade Sınıf	Deoxidation Type Oksijen Giderme	Chemical Composition, in % Maximum Lable Analysis " Kimyasal Bileşim, % Maximum Olarak Pota Analizi						Mechanical Properties Fiziksel Özellikler									
			C	Mn	P	S	Si	N	Tensile Strength Çekme Dayanımı <3 mm >=3mm		Yield Point Akma Dayanımı	Elongation, % min.Long./Transverse Uzama, min. % Uzunlamasına/Enine						
									N/mm2	N/mm2		N/mm2(min)	>=0.5<1	>=1<1.5	>=1.5<2	>=2<2.5	>=2.5<3	>=3<=40
DIN 17100	St 33	optional	-	-	-	-	-	-	310-540	290-510	185	10/8	11/9	12/10	13/11	14/12	18/16	
	ST 37-2	optional	0.17	-	0.050	0.050	-	0.009	360-510	340-370	235	17/15	18/16	19/17	20/18	21/19	26/24	
	USt 37-2	U	0.17	-	0.050	0.050	-	0.007										
	RSt 37-2	R	0.17	-	0.050	0.050	-	0.009										
	St 37-3	RR	0.17	-	0.040	0.040	-	-										
	St 44-2	R	0.21	-	0.050	0.050	-	0.009	430-580	410-540	275	14/12	15/13	16/14	17/15	18/16	22/20	
	St 44-3	RR	0.20	-	0.040	0.040	-	-										
			C	Mn	P	S	Si	N	N/mm2	N/mm2	N/mm2(min)							
EN 10025	S235JR	FN	0.17	1.40	0.040	0.040	-	0.012	360-510	360-510	235	17/15	18/16	19/17	20/18	21/19	26/24	
	S235J0	FN	0.17	1.40	0.035	0.035	-	0.012										
	S235J2	FF	0.17	1.40	0.030	0.030	-	-										
	S275JR	FN	0.21	1.50	0.040	0.040	-	0.012	430-580	410-560	275	15/13	16/14	17/15	18/16	19/17	23/21	

	S275J0	FN	0.18	1.50	0.035	0.035	-	0.012									
	S275J2	FF	0.18	1.50	0.030	0.030	-	-									
			C	Mn	P	S	Si	N	N/mm2	N/mm2	N/mm2 (min)	Elongation % min Uzama					
ERDEMIR	1110	-	0.10	0.50	0.025	0.025	0.100	-	-		-	-					
	3233	-	0.12	1.20	0.025	0.020	0.40	-	310-540	290-510	185	11	11	11	11	12	16
	3237	-	0.17	1.00	0.025	0.020	0.40	0.012	360-510	340-470	235	18	18	18	18	19	24
	2009	-	0.10	0.70	0.025	0.030	0.30	-	min 330		205	22-35					
	2008	-	0.06-0.12	0.35-0.60	0.025	0.020	0.15-0.30	-	min 330		205	31					
	2237	-	0.12	0.40-0.80	0.020	0.020	0.10-0.30	-	360-480		235	27					
			C	Mn	P	S	Si	N	N/mm2	N/mm2 (max)	Elongation % min Uzama						
EN10130	DC01	optional	0.12	0.60	0.045	0.045	-	-	270-410		280	28					
	DC03	FF	0.10	0.45	0.035	0.035	-	-	270-370		240	34					
	DC04	FF	0.08	0.40	0.030	0.030	-	-	270-350		210	38					
	DC05	FF	0.06	0.35	0.025	0.025	-	-	270-330		180	40					
			C	Mn	P	S	Si	N	N/mm2	N/mm2 (min)	Elongation % Uzama						
ASTM A 53	GrA	-	0.25	0.95	0.050	0.060	-	-	min 330		205	22-35					
	GrB	-	0.30	1.20	0.050	0.060	-	-	min 415		240	18-28					
			C	Mn	P	S	Si	N	N/mm2	N/mm2 (min)	Elongation % Uzama						

API 5L	A25		0.21	0.60	0.030	0.030	-	-	min 310	172	24-36
	A	-	0.22	0.90	0.030	0.030	-	-	min 331	207	22-35
	B	-	0.28	1.20	0.030	0.030	-	-	min 414	241	20-28
	X42	-	0.28	1.30	0.030	0.030	-	-	min 414	290	20-28

DEOXIDATION TYPES	
Oksijen Giderme	
DIN 17100	
U :	Rimming
R :	Killed
RR :	Special Killed
EN 10 025	
FU :	Rimming
FN :	Rimming Not Permitted
FF :	Fully Killed