Surveotstarbeliste lehtteraste mehaanilised omadused

T. EN10028

Margitähis	Tunnus-nr.	Olek[1]	Mõõtmed t, mm	Omadused, min					
				R_e[2] N/mm²	R_m N/mm²	A[3] %	KV[4], J		
							+20	0	-20 °C
Mittelegeer- ja legeerterased etteantud kõrgetemperatuursete omadustega EN10028-2									
P235GH	1.0345	N	≤16	235	360-480	24	40	34	27
			16-40	225					
			40-60	215					
			60-100	200					
			100-150	185	350-480				
			150-250	170	340-480				
P265GH	1.0425	N	≤16	265	410-530	22	40	34	27
			16-40	255					
			40-60	245					
			60-100	215					
			100-150	200	400-530				
			150-250	185	390-530				
P295GH	1.0481	N	≤16	295	460-580	21	40	34	27
			16-40	290					
			40-60	285					
			60-100	260					
			100-150	235	440-570				
			150-250	220	430-570				
P355GH	1.0473	N	≤16	355	510-650	20	40	34	27
			16-40	345					
			40-60	335					
			60-100	315	490-630				
			100-150	295	480-630				
			150-250	280	470-630				
16Mo3	1.5415	N	≤16	275	440-590	22	31	-	-
			16-40	270					
			40-60	260					
			60-100	240	430-560				
			100-150	220	420-570				
			150-250	210	410-570				
18MnMo4-5	1.5414	NN	≤60	345	510-650	20	40	34	27
			60-150	325					
		P	150-250	310	480-620				
20MnMoNi4-5	1.6311	P	≤40	470	590-750	18	50	40	27
			40-60	460	590-730				
			60-100	450	570-710				
			100-150	440					
			150-250	400	560-700				
15NiCuMoNb5-6-4	1.6368	NN	≤40	450	610-780	16	40	34	27
			40-60	440					
			60-100	430	600-760				
			100-150	420	590-740				
		P	150-200	410	580-740				

13CrMo4-5	1.7335	NN	≤16 16-60	300 290	450-600	19	31	-	-
			60-100	270	440-590		27	-	-
		NN, P	100-150	255	430-580		-	-	-
		P	150-250	245	420-570				

Margitähis	Tunnus-nr.	Olek[1]	Mõõtmed t, mm	Omadused, min						
				R_e[2] N/mm²	R_m N/mm²	A[3] %	KV[4], J			
							+20	0	-20 °C	Muu
13CrMoSi5-5	1.7336	NN	≤60 60-100	310 300	510-690 480-660	20	34	27	-	
		P	100-250	300	450-630					
10CrMo9-10	1.7380	NN	≤16 16-40 40-60	310 300 290	480-630	18	31	-	-	
		NN, P	60-100	280	470-620	17	27	-	-	
		P	100-150 150-250	260 250	460-620 450-600					
12CrMo9-10	1.7375	NN, P	≤250	355	540-690	18	70	-	-	
X12CrMo5	1.7362	NN	≤60 60-150	320 300	510-690 480-660	20	40	34	27	
		P	150-250	300	450-630					
13CrMoV9-10	1.7703	NN	≤60 60-150	455 435	600-780 590-770	18	40	34	27	
		P	150-250	415	580-760					
12CrMoV12-10	1.7767	NN	≤60 6-150	455 435	600-780 590-770	18	40	34	27	
		P	150-250	415	580-760					
X10CrMoVNb9-1	1.4903	NN	60 6-150	445 435	580-760 550-730	18	40	34	27	
		P	150-250	435	520-700					
Keevitatavad normaliseeritud peenteraterased EN10028-3										
P275NH P275NL2	1.0487 1.1104	N	<16 16-40 40-60	275 265 255	390-510	24	NH 75/50	65/40	45/30	
			60-100 100-150 150-250	235 225 215	370-490 360-480 350-470	23	NL2 85/70	75/60	55/40	45/30 (-40) 42/27 (-50)
P355NH P355NL2	1.0565 1.1106	N	<16 16-40 40-60	355 345 335	490-630	22				
			60-100 100-150 150-250	315 305 295	470-610 460-600 450-590	21				
P460NH P460NL2	1.8935 1.8918	N	<16 16-40 40-60	460 445 430	570-720	17				
			60-100	400	540-710	16				
Ni-terased etteantud madalatemperatuursete omadustega EN10028-4										
11MnNi5-3	1.6212	N, NN	≤30 30-50	285 275	420-530	24	70/45	60/40	55/40	50/35 (-40) 40/27 (-60)

13MnNi6-3	1.6217	N, NN	≤30 30-50	355 345	490-610	22	65/45	65/45	65/45	60/40 (-40) 50/35 (-60) 40/27 (-80)
15NiMi6	1.6228	N, NN, P	≤30 30-50	355 345	490-640	22	6545	65/45	65/45	60/40 (-40) 50/35 (-60) 40/27 (-80)
12Ni14	1.5637	N, NN, P	≤30 30-50	355 345	490-640	22	65/45	60/40	55/40	55/35 (-40) 50/35 (-60) 45/30 (-80)

Margitähis	**Tunnus-nr.**	**Olek[1)]**	**Mõõtmed t, mm**	**Omadused, min**						
				R_e[2)] N/mm²	**R_m N/mm²**	**A[3)] %**	**KV[4)], J**			
							+20	**0**	**-20 °C**	**Muu**
12Ni19	1.5680	N, NN, P	≤30 30-50	390 380	530-710	20	70/50	70/50	70/50	65/45 (-40) 65/45 (-60) 60/40 (-80)
X8Ni9	1.5562	NN,	≤30	490	640-840	18	70/50	70/50	70/50	70/50 (-40) 70/50 (-60) 70/50 (-80)
		P	30-50	480			120/100	120/100	120/100	120/100 (-40) 120/100 (-60) 120/100 (-80)
X7Ni9	1.5563	P	≤30 30-50	585 575	680-820	18	120/100	120/100	120/100	120/100 (-40) 120/100 (-60) 120/100 (-80)
Termomehaaniliselt valtsitud keevitatavad peenteraterased EN10028-5										
P355M P355ML1 P355ML2	1.8821 1.8832 1.8833		≤16 16-40 40-63	355 355 345	450-610	22	60 - -	40 60 80	27 40 60	 27 (-40) 40 (-40) 27 (-50)
P420M P420ML1 P420ML2	1.8824 1.8835 1.8828		≤16 16-40 40-63	420 400 390	500-660	19	60 - -	40 60 80	27 40 60	 27 (-40) 40 (-40) 27 (-50)
P460M P460ML1 P460ML2	1.8826 1.8837 1.8831		≤16 16-40 40-63	460 440 430	530-720	17	60 - -	40 60 80	27 40 60	 27 (-40) 40 (-40) 27 (-50)
Keevitatavad parendatud peenteraterased EN10028-6										
P355Q P355QH P355QL1 P355QL2	1.8866 1.8867 1.8868 1.8869		≤50 50-100 100-150	355 335 315	490-630 450-590 	22	Q,QH			
P460Q P460QH P460QL1 P460QL2	1.8870 1.8871 1.8872 1.8864		≤50 50-100 100-150	460 440 400	550-720 500-670 	19	60 QL - QL2	40 60	27 40	 27 (-40)
P500Q P500QH P500QL1 P500QL2	1.8873 1.8874 1.8875 1.8865		≤50 50-100 100-150	500 480 440	590-770 540-720 	17	-	80	60	40 (-40) 27 (-60)
P690Q P690QH P690QL1 P690QL2	1.8879 1.8880 1.8881 1.8888		≤50 50-100 100-150	690 670 630	770-940 720-900 	14				

Roostevabad terased EN10028-7										
Ferriitterased (lõõmutatult)										
X2CrNi12	1.4003	R1 R2	≤6 ≤12	280/320	450-650	20	50			
		L	≤25	250/280		18				
X6CrNiTi12	1.4516	R1 R2	≤6 ≤12	280/320	450-650	23	50			
		L	≤25	250/280		20				

Margitähis	**Tunnus-nr.**	**Olek[1)]**	**Mõõtmed t, mm**	**Omadused, min**						
				R_e[2)] N/mm²	**R_m N/mm²**	**A[3)] %**	**KV[4)], J**			
							+20	**0**	**-20 °C**	**Muu**
X3CrTi17	1.4510	R1	≤3	230/280	420-600	23	-			
X2CrMoTi18-2	1.4521	R1	≤2,5	300/320	420-640	20	-			
X2CrTi17	1.4520	R1	≤2,5	180/200	380-530	24	-			
X2CrTiNb18	1.4509	R1	≤2,5	230/250	430-630	18	-			
Martensiitterased (parendatult)										
X3CrNiMo13-4	1.4313	L	≤75	650	780-980	14	70		40	
X4CrNiMo16-5-1	1.4418	L	≤75	680	840-980	14	55		40	
Austeniitterased (lõõmutatult)										
X2CrNiN18-7	1.4318	R1 R2 L	≤6 ≤12 ≤75	350 330 330	650-850	35/40	90/60			
X2CrNi18-9	1.4307	R1 R2 L	≤6 ≤12 ≤75	220 200 200	520-670 500-650	45/45	100/60			-/60 (-196)
X2CrNi19-11	1.4306	R1 R2 L	≤6 ≤12 ≤75	220 200 200	520-670 500-650	45/45	100/60			-/60 (-196)
X20NiN18-10	1.4311	R1 R2 L	≤6 ≤12 ≤75	290 270 270	550-750	40/40	100/60			-/60 (-196)
X5CrNi18-10	1.4301	R1 R2 L	≤6 ≤12 ≤75	230 210 210	540-750 520-720	45/45	100/60			-/60 (-196)
X5CrNiN19-9	1.4315	R1 R2 L	≤6 ≤12 ≤75	290 270 270	550-750	40/40	100/60			-/60 (-196)
X6CrNi18-10	1.4948	R1 R2 L	≤6 ≤12 ≤75	230 210 190	530-740 510-710	45/45	100/60			
X6CrNi23-13	1.4950	R1 R2 L	≤6 ≤12 ≤75	220 200 200	530-730 510-710	35/35	100/60			
X6CrNi25-20	1.4951	R1 R2 L	≤6 ≤12 ≤75	220 200 200	520-720 500-700	35/35	100/60			
X6CrNiTi18-10	1.4541	R1 R2 L	≤6 ≤12 ≤75	220 200 200	510-710 490-690	40/40	100/60			-/60 (-196)

X6CrNiTiB18-10	1.4941	R1 R2 L	≤6 ≤12 ≤75	220 200 200	510-710 490-690	40/40	100/60			
X2CrNiMo17-12-2	1.4404	R1 R2 L	≤6 ≤12 ≤75	240 220 220	530-680 520-670	40/40 45/45	100/60			-/60 (-196)
X2CrNiMoN17-11-2	1.4406	R1 R2 L	≤6 ≤12 ≤75	300 280 200	580-780	40/40	100/60			-/60 (-196)

Margitähis	**Tunnus-nr.**	**Olek[1)]**	**Mõõtmed t, mm**	**Omadused, min**						
				R_e[2)] N/mm²	**R_m N/mm²**	**A[3)] %**	**KV[4)], J**			
							+20	**0**	**-20 °C**	**Muu**
X5CrNiMo17-12-2	1.4401	R1 R2 L	≤6 ≤12 ≤75	240 220 220	530-680 520-670	40/40 45/45	100/60			-/60 (-196)
X6CrNiMoTi17-12-2	1.4571	R1 R2 L	≤6 ≤12 ≤75	240 220 220	540-690 520-670	40/40	100/60			-/60 (-196)
X2CrNiMo17-12-3	1.4432	R1 R2 L	≤6 ≤12 ≤75	240 220 220	550-700 520-670	40/40 45/45	100/60			-/60 (-196)
X2CrNiMo18-14-3	1.4435	R1 R2 L	≤6 ≤12 ≤75	240 220 220	550-700 520-670	40/40 45/45	100/60			-/60 (-196)
X2CrNiMoN17-13-5	1.4439	R1 R2 L	≤6 ≤12 ≤75	290 270 270	580-780	35/35 40/40	100/60			-/60 (-196)
X1NiCrMoCu25-20-5	1.4539	R1 R2 L	≤6 ≤12 ≤75	240 220 220	530-730 520-720	35/35	100/60			-/60 (-196)
X5NiCrAlTi31-20	1.4958	L	≤75	170	500-750	30/30	120/80			
X5NiCrAlTi31-20+R	1.4958 +R	L+ rekr	≤75	210	500-750	30/30	120/80			
X8NiCrAlTi32-21	1.4959	L	≤75	170	500-750	30/30	120/80			
X3CrNiMoBN17-13-3	1.4910	R1 R2 L	≤6 ≤12 ≤75	300 260 260	580-780 550-750	35/40	100/60			
X1CrNi25-21	1.4335	L	≤75	200	470-670	40/40	100/60			-/60 (-196)
X6CrNiNb18-10	1.4550	L	≤75	200	500-700	40/40	100/60			-/60 (-196)
X8CrNiNb16-13	1.4961	L	≤75	200	510-690	35/35	100/60			
X1CrNiMoN25-22-2	1.4466	L	≤75	250	540-740	40/40	100/60			-/60 (-196)
X6CrNiMoNb17-12-2	1.4580	L	≤75	220	520-720	40/40	100/60			
X2CrNiMoN17-13-3	1.4429	R1 R2 L	≤6 ≤12 ≤75	300 280 280	580-780	35/35 40/40	100/60			-/60 (-196)
X3CrNiMo17-13-3	1.4436	R1 R2 L	≤6 ≤12 ≤75	240 220 220	550-700 530-730	40/40	100/60			-/60 (-196)

X2CrNiMo18-12-4	1.4434	R1 R2 L	≤6 ≤12 ≤75	290 270 270	570-770 540-740	35/35 40/40	100/60			-/60 (-196)
X2CrNiMo18-15-4	1.4438	R1 R2 L	≤6 ≤12 ≤75	240 220 220	550-700 520-720	35/35 40/40	100/60			-/60 (-196)
X1NiCrMoCu31-27-4	1.4563	L	≤75	220	500-700	40/40	100/60			-/60 (-196)
X1CrNiMoCuN25-25-5	1.4537	L	≤75	290	600-800	40/40	100/60			-/60 (-196)

Margitähis	**Tunnus-nr.**	**Olek[1)]**	**Mõõtmed t, mm**	**Omadused, min**						
				R_e[2)] N/mm²	**R_m N/mm²**	**A[3)] %**	**KV[4)], J**			
							+20	**0**	**-20 °C**	**Muu**
X1CrNiMoCuN20-18-7	1.4547	R1 R2 L	≤6 ≤12 ≤75	320 300 300	650-850	35/35 40/40	100/60			-/60 (-196)
X1NiCrMoCuN25-20-7	1.4529	L	≤75	300	650-850	40/40	100/60			-/60 (-196)
Austeniitferriitterased (lõõmutatult)										
X2CrNiN23-4	1.4362	R1 R2 L	≤6 ≤12 ≤75	405 385 385	600-850 630-800	20/20 25/25	100/60			-/40 (-196)
X2CrNiMoN22-5-3	1.4462	R1 R2 L	≤6 ≤12 ≤75	465 445 445	660-950 640-840	20/20 25/25	100/60			-/40 (-196)
X2CrNiMoCuN25-6-3	1.4507	R1 R2 L	≤6 ≤12 ≤75	495 475 475	690-940 690-890	20/20 25/25	100/60			-/40 (-196)
X2CrNiMoN25-7-4	1.4410	R1 R2 L	≤6 ≤12 ≤75	535 515 515	750-1000 730-930	20/20	100/60			-/40 (-196)
X2CrNiMoCuWN25-7-4	1.4501	L	≤75	515	730-930	25/25	100/60			-/40 (-196)

[1)] N – normaliseeritult, NN – normaliseeritult ja noolutatult, P – parendatult, R1 – külmvaltsriba, R2 – kuumvaltsriba, L – kuumvaltsleht

[2)] R_{eH} või $R_{p0,2}$

[3)] A80 või A($L = 5{,}65\sqrt{S_o}$), õhukese materjali korral (t<3 mm) A80, paksu (t ≥3mm) korral A, mõlema korral murruna A80/A

[4)] ristisuunas; murru korral lugejas valtsimise suunas (pikisuunas)/nimetajas ristisuunas