

7.3 mechanische Werte bei 20°C

(Richtwerte für **geglühte** Werkstoffe bei 20 °C; Dicke oder Durchmesser < 160 mm, längs)

1 MPa = 1 N/mm²

Werkstoff	Festigkeit			Bruch- dehnung	Kerb- schlag (ISO-V)	Härte	warmgewalztes Blech				kaltgewalztes Band			
	R _{p0.2}	R _{p1.0}	R _m				A ₅	KV	geglüht	R _{p0.2}	R _{p1.0}	R _m	KV (quer)	R _{p0.2}
	MPa min.	MPa min.	MPa	% min.	J min.	HB max.	MPa min.	MPa min.	MPa	J min.	MPa min.	MPa min.	MPa	
Ferrit	1.4000	220	---	400 - 630	19	---	200	220	---	400 - 600	---	240	---	400 - 600
	1.4003	250	---	450 - 650	18	---	200	250	---	450 - 650	---	280	---	450 - 650
	1.4016	240	---	400 - 630	18	---	200	240	---	430 - 630	---	260	---	450 - 600
	1.4509	200	---	420 - 620	18	---	200	---	---	---	---	230	---	430 - 630
	1.4510	230	---	420 - 600	23	---	---	230	---	420 - 600	---	230	---	420 - 600
	1.4512	210	---	380 - 560	25	---	---	210	---	380 - 560	---	210	---	380 - 560
	1.4520	200	---	420 - 620	20	---	200	---	---	---	---	180	---	380 - 530
1.4521	280	---	400 - 640	20	---	200	280	---	420 - 620	---	300	---	420 - 640	
Martensit	1.4005	1)	1)	max. 730	1)	1)	220	---	---	---	---	---	---	---
	1.4006	1)	1)	max. 730	1)	1)	220	1)	---	1)	1)	---	---	max. 600
	1.4021	1)	1)	max. 760	1)	1)	230	1)	---	1)	1)	---	---	max. 700
	1.4028	1)	1)	max. 800	1)	1)	245	1)	---	1)	1)	---	---	max. 740
	1.4034	1)	1)	max. 800	1)	1)	245	1)	---	1)	1)	---	---	max. 780
	1.4057	1)	1)	max. 950	1)	1)	295	---	---	---	---	---	---	---
	1.4104	1)	1)	max. 730	1)	1)	220	---	---	---	---	---	---	---
	1.4112	1)	1)	1)	1)	1)	265	---	---	---	---	---	---	---
	1.4122	1)	1)	max. 900	1)	1)	280	1)	---	1)	1)	---	---	max. 900
	1.4313	1)	1)	max. 1100	1)	1)	320	1)	---	1)	1)	1)	---	1)
1.4418	1)	1)	max. 1100	1)	1)	320	1)	---	1)	1)	1)	---	1)	
1.4542	1)	1)	max. 1200	1)	1)	360	1)	---	1)	1)	1)	---	1)	
Duplex	1.4162	450	490	650 - 900	30	60	290	450	490	650 - 850	60	530	570	700 - 900
	1.4362	400	---	600 - 830	25	100	260	400	---	630 - 800	60	450	---	650 - 850
	1.4410	530	---	730 - 930	25	100	290	530	---	730 - 930	60	550	---	750 - 1000
	1.4460	450	---	620 - 880	20	85	260	---	---	---	---	---	---	---
	1.4462	450	---	650 - 880	25	100	270	460	---	640 - 840	60	500	---	700 - 950
	1.4501	530	---	730 - 930	25	100	290	530	---	730 - 930	60	---	---	---
	1.4662	480	---	680 - 900	25	---	290	480	---	680 - 900	---	550	---	750 - 900
Austenit	1.4305	190	225	500 - 750	35	---	230	190	230	500 - 700	---	---	---	---
	1.4310	195	230	500 - 750	40	---	230	---	---	---	---	250	280	600 - 950
	1.4318	330	370	650 - 850	35	90	---	330	370	630 - 830	60	350	380	650 - 850
	1.4372	330	370	680 - 880	40	100	260	330	370	680 - 880	60	350	380	680 - 880
	1.4301	190	225	500 - 700	45	100	215	210	250	520 - 720	60	230	260	540 - 750
	1.4303	190	225	500 - 700	45	100	215	---	---	---	---	220	250	500 - 650
	1.4306	180	215	460 - 680	45	100	215	200	240	500 - 700	60	220	250	520 - 700
	1.4307	175	210	500 - 700	45	100	215	200	240	500 - 700	60	220	250	520 - 700
	1.4311	270	305	550 - 760	40	100	230	270	310	550 - 750	60	290	320	550 - 750
	1.4315	270	310	550 - 750	40	100	215	270	310	500 - 750	60	290	320	500 - 750
	1.4541	190	225	500 - 700	40	100	215	200	240	500 - 700	60	220	250	520 - 720
	1.4550	205	240	510 - 740	40	100	230	200	240	500 - 700	60	220	250	520 - 720
	1.4567	175	210	450 - 650	45	---	215	---	---	---	---	---	---	---
	1.4401	200	235	500 - 700	40	100	215	220	260	520 - 670	60	240	270	530 - 680
	1.4404	200	235	500 - 700	40	100	215	220	260	520 - 670	60	240	270	530 - 680
	1.4406	280	315	580 - 800	40	100	250	280	320	580 - 780	60	300	330	580 - 780
	1.4408	185	210	440 - 640	30	60	130 - 200	---	---	---	---	---	---	---
	1.4429	280	315	580 - 800	40	100	250	280	320	580 - 780	60	300	330	580 - 780
1.4432	200	235	500 - 700	40	100	215	220	260	520 - 670	60	240	270	550 - 700	
1.4435	200	235	500 - 700	40	100	215	220	260	520 - 670	60	240	270	550 - 700	
1.4435 BN2	200	235	500 - 700	35	85	---	220	260	520 - 700	55	240	270	550 - 700	
1.4436	200	235	500 - 700	40	100	215	220	260	530 - 730	60	240	270	550 - 700	
1.4571	200	235	500 - 700	40	100	215	220	260	520 - 670	60	240	270	540 - 690	
hochlegiert	1.4434	270	310	540 - 740	40	100	---	270	310	540 - 740	60	290	320	570 - 770
	1.4438	200	235	500 - 700	40	100	215	220	260	520 - 720	60	240	270	550 - 700
	1.4439	280	315	580 - 800	35	100	250	270	310	580 - 780	60	290	320	580 - 780
	1.4466	250	290	540 - 740	35	100	240	250	290	540 - 740	60	---	---	---
	1.4539	230	260	530 - 730	35	100	230	220	260	520 - 720	60	240	270	530 - 730
	Super-austenit	1.4529	300	340	650 - 850	40	100	250	300	340	650 - 850	60	---	---
1.4547		300	340	650 - 850	35	100	260	300	340	650 - 850	60	320	350	650 - 850
1.4562		280	310	650 - 850	40	120	---	---	---	---	---	---	---	---
1.4565		420	460	800 - 950	35	100	---	420	460	800 - 950	90	420	460	800 - 950
1.4652		430	470	750 - 1000	40	100	310	430	470	750 - 1000	60	430	470	750 - 1000
hitzebeständig		1.4713	220	---	420 - 620	20	---	192	---	---	---	---	---	---
	1.4724	250	---	450 - 650	15	---	192	---	---	---	---	---	---	---
	1.4742	270	---	500 - 700	15	---	212	---	---	---	---	---	---	---
	1.4762	280	---	520 - 720	10	---	223	---	---	---	---	---	---	---
	1.4818	290	330	600 - 800	40	---	210	---	---	---	---	---	---	---
	1.4828	230	270	550 - 750	30	---	223	---	---	---	---	---	---	---
	1.4833	210	250	500 - 700	35	---	192	---	---	---	---	---	---	---
	1.4835	310	350	650 - 850	40	---	210	---	---	---	---	---	---	---
	1.4841	230	270	550 - 750	30	---	223	---	---	---	---	---	---	---
	1.4845	210	250	500 - 700	35	---	192	---	---	---	---	---	---	---
	1.4854	300	340	650 - 850	40	---	210	---	---	---	---	---	---	---
1.4878	190	230	500 - 720	40	---	215	---	---	---	---	---	---	---	
warmfest	1.4941	175	210	490 - 690	40	100	---	---	---	---	---	---	---	---
	1.4948	195	230	490 - 690	45	100	---	---	---	---	---	---	---	---
	1.4950	200	240	510 - 710	35	100	---	---	---	---	---	---	---	---
	1.4951	200	240	510 - 710	35	100	---	---	---	---	---	---	---	---
Sonder- stähle	1.3805	240	---	650 - 900	22	55	---	---	---	---	---	---	---	---
	1.3964	365	---	700 - 950	35	85	---	---	---	---	---	---	---	---

--- Werte nicht verfügbar

1) im vergüteten Zustand sind die Werte von der Wärmebehandlung abhängig, siehe EN 10088 Teile 2 & 3

