

Standard materials

The following material table shows a selection of MIMplus's standard materials. The details of the mechanical properties listed in the table are typical values, detailed specifications and other materials on request.

Material	Condition	Equivalent material designation	Density g/cm ³	Yield point Rp 0,2 MPa	Tensile strength Rm MPa	Breaking strain A %	Hardness	Notes
Low alloyed steels for heat treatment								
FN02	sintered	Fe-2Ni	≥7,50	≥120	≥260	≥25	80-110 HV10	case-hardenable
	surface hardened			-	-	-	≥600 HV 0,2	
100Cr6	sintered	DIN 1.3505	≥7,50	≥500	≥900	≥5	230-290 HV10	heat treatable, wear-resistant
	heat treated			-	-	-	635-720 HV10	
42CrMo4	sintered	DIN 1.7225	≥7,40	≥400	≥700	≥3	130-230 HV10	temperable, surface hardenable, conditionally weldable
	heat treated			≥700	≥1000	≥2	28-36 HRC	
	surface hardened			-	-	-	> 600 HV1	
Tool steels								
M2	sintered	DIN 1.3342	≥7.90	≥800	≥1050	≥1	50-58 HRC	age-hardenable, wear-resistant
	heat treated			-	-	-	60-66 HRC	
Stainless steels								
Nitronic 50	sintered	DIN 1.4565	≥7.80	≥340	≥570	≥16	180-240 HV10	austenitic, non-magnetic
316L	sintered	DIN 1.4404	≥7.75	≥150	≥450	≥40	100-150 HV10	austenitic, non-magnetic, can be polished
17-4-PH	sintered	DIN 1.4542	≥7.60	≥660	≥800	≥3	290-340 HV10	martensitic precipitation, hardening, ferromagnetic, can be polished
	heat treated			-	-	-	36-40 HRC	
430	sintered	DIN 1.4016	≥7.60	≥200	≥350	≥30	100-150 HV10	heat-resistant, ferromagnetic
440C	sintered	DIN 1.4125	≥7.54	-	-	-	39 HRC	martensitic, hardenable, heat-resistant, ferromagnetic
	heat treated			-	-	-	61 HRC	
Titanium								
Ti Grade2	sintered	DIN 3.7035	≥4.30	≥270	≥340	≥20	≥170 HV10	non-magnetic, corrosion-resistant, light
Ti Grade4	sintered	DIN 3.7065	≥4.20	≥480	≥550	≥5	160-240 HV10	non-magnetic, corrosion-resistant, light
Ti Grade5	sintered	DIN 3.7164	≥4.30	-	-	-	330-355 HV10	non-magnetic, corrosion-resistant, light
Other alloys								
FN50	sintered	DIN 1.3926	≥7.60	≥150	≥400	≥20	90-120 HV10	magnetically soft alloy
FeSi3	sintered	DIN 1.0884	≥7.50	≥280	≥440	≥20	140-170 HV10	magnetically soft alloy
Inconel 601	sintered	DIN 2.4851	≥7,6	≥210	≥620	≥30	135-160 HV10	nickel based alloy
Cu 99.9	sintered	DIN 2.0060	≥8.50	≥40	≥200	≥40	36-38 HV10	electric conductivity 50 MS/m, good thermal conductivity

The material table is subject to alterations.