

Standard materials for AM

| Material | Condition | Equivalent material designation | Density g/cm ³ | Yield point Rp 0,2 MPa | Tensile strength Rm MPa | Breaking strain A % | Hardness | Notes |
|-------------------------|--------------|---------------------------------|---------------------------|------------------------|-------------------------|---------------------|--------------|--|
| Stainless steels | | | | | | | | |
| 316L | sintered | DIN 1.4404 | ≥7.75 | ≥150 | ≥450 | ≥40 | ≥100 HV10 | austenitic, non-magnetic, can be polished |
| 17-4-PH | sintered | DIN 1.4542 | ≥7.60 | ≥660 | ≥800 | ≥3 | ≥290 HV10 | martensitic, precipitation hardening, ferromagnetic, can be polished |
| | heat treated | | | ≥1000 | ≥1190 | ≥3 | ≥37 HRC | |
| 15-5PH | sintered | DIN 1.4545 | ≥7.60 | ≥750 | ≥1150 | ≥6 | ≥300 HV10 | martensitic, precipitation hardening, ferromagnetic, can be polished |
| | heat treated | | | ≥1100 | ≥1300 | ≥6 | ≥40HRC | |
| In development | | | | | | | | |
| Titanium | | | | | | | | |
| TiAl6V4 | sintered | DIN 3.7035 | ≥4.30 | ≥600 | ≥800 | ≥3 | tbd | non-magnetic, corrosion-resistant, light-weight |
| Tool steels | | | | | | | | |
| M2 | sintered | DIN 1.3342 | tdb | tbd | tbd | tbd | tbd | hardenable and temperable, wear-resistant |
| | heat treated | | | tbd | tbd | tbd | tbd | |
| D2 | sintered | DIN 1.2379 | tdb | tbd | tbd | tbd | tbd | hardenable and temperable, wear-resistant, stainless |
| | heat treated | | | tbd | tbd | tbd | tbd | |
| H13 | sintered | DIN 1.2344 | ≥7.40 | ≥850 | ≥1800 | ≥3 | ≥46 HRC | hardenable and temperable, wear-resistant |
| | heat treated | | | ≥1300 | ≥1580 | ≥3 | ≥46 HRC | |
| Low Alloy steels | | | | | | | | |
| 4330 | sintered | DIN 1.6511 | ≥7.45 | ≥500 | ≥700 | ≥4 | ≥24 HRC | hardenable and temperable, wear-resistant |
| | heat treated | | | ≥1200 | ≥1600 | ≥2 | ≥48 HRC | |
| Other alloys | | | | | | | | |
| Inconel 718 | Sintered | DIN 2.4851 | ≥7,6 | ≥210 | ≥620 | ≥30 | 135-160 HV10 | nickel based alloy |

The material table is subject to alterations.



MIMplus Technologies GmbH & Co. KG

Turnstr. 22 · 75228 Ispringen · Germany

Tel. +49 7231 802-100 · www.mimplus.de · infomim@mimplus.de