

Einsatzwerte NC-Maschinenreihbare HSSE-TiN mit Einheitsschaft (Art.-Nr. 1003130 144-150)



| Materialgruppen für Schnittwerte | Festigkeit [N/mm ²] | Bezeichnung nach DIN | Vc [m/min] | 1-5 | 5-8 | 8-10 | 10-15 | 15-20 |
|--|---------------------------------|----------------------|------------|-----------|-----------|-----------|-----------|----------|
| 1. Stähle | | | | | | | | |
| 1.1 Automatenstahl | < 900 | 9 S 20 | 10-20 | 0.1-0.15 | 0.15-0.18 | 0.18-0.22 | 0.22-0.25 | 0.25-0.3 |
| 1.2 Baustahl | <500 | ST 37-2 | 10-20 | 0.1-0.15 | 0.15-0.18 | 0.18-0.22 | 0.22-0.25 | 0.25-0.3 |
| 1.3 Baustahl | > 500 | ST 60-2 | 10-18 | 0.1-0.15 | 0.15-0.18 | 0.18-0.22 | 0.22-0.25 | 0.25-0.3 |
| 1.4 Vergütungsstahl | <1000 | 42 CrMo 4 | 8-12 | 0.1-0.15 | 0.15-0.18 | 0.18-0.22 | 0.22-0.25 | 0.25-0.3 |
| 1.5 Stahlguss | <1000 | GS-45 | 8-10 | 0.1-0.15 | 0.15-0.18 | 0.18-0.22 | 0.22-0.25 | 0.25-0.3 |
| 1.6 Einsatzstahl | <1200 | 16 MnCr 5 | 8-10 | 0.1-0.15 | 0.15-0.18 | 0.18-0.22 | 0.22-0.25 | 0.25-0.3 |
| 1.7 Edelstahl ferritisch/ martensitisch | <1100 | X 10 Cr 13 | 6-10 | 0.06-0.08 | 0.08-0.1 | 0.1-0.15 | 0.15-0.2 | 0.2-0.25 |
| 1.8 Vergütungsstahl | >1000 | 43 CrMo 4 | 5-8 | 0.06-0.08 | 0.08-0.1 | 0.1-0.15 | 0.15-0.2 | 0.2-0.25 |
| 1.9 Nitrierstahl | <1300 | 31 CrMoV 9 | 5-8 | 0.06-0.08 | 0.08-0.1 | 0.1-0.15 | 0.15-0.2 | 0.2-0.25 |
| 1.10 Werkzeugstahl | <1300 | X 38 CrMoV 5 1 | 5-8 | 0.1-0.15 | 0.15-0.18 | 0.18-0.22 | 0.22-0.25 | 0.25-0.3 |
| 2. Rostfreie Stähle | | | | | | | | |
| 2.1 Edelstahl, austenitisch | <1100 | G-X 2 CrNiMo 18 15 | 5-8 | 0.06-0.08 | 0.08-0.1 | 0.1-0.15 | 0.15-0.2 | 0.2-0.25 |
| 3. NE-Metalle | | | | | | | | |
| 3.1 Aluminium, langspanend | <500 | Al99.9 | 15-30 | 0.13-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.3 | 0.3-0.35 |
| 3.2 Aluminium, kurzspanend | <500 | G-AlSi12 | 15-25 | 0.13-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.3 | 0.3-0.35 |
| 3.3 Kupferleg. Bronze langspanend | <1200 | CuSn4 | 10-25 | 0.1-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.3 | 0.3-0.4 |
| 3.4 Kupferleg. Bronze kurzspanend | <850 | CuNi12Zn24 | 10-20 | 0.1-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.3 | 0.3-0.4 |
| 3.5 Kupferleg. Messing langspanend | <600 | Cu Zn 20 | 20-30 | 0.13-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.3 | 0.3-0.35 |
| 3.6 Kupferleg. Messing kurzspanend | <600 | Cu Zn 39 Pb 3 | 20-25 | 0.13-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.3 | 0.3-0.35 |
| 3.7 Thermoplastic | <100 | PVC, Acrylglas | 15-30 | 0.18-0.2 | 0.2-0.25 | 0.25-0.3 | 0.3-0.35 | 0.35-0.4 |
| 3.8 Duroplast | <150 | Bakelit, Melamin | 15-30 | 0.18-0.2 | 0.2-0.25 | 0.25-0.3 | 0.3-0.35 | 0.35-0.4 |
| 3.9 Faserverstärkte Kunststoffe | <1500 | CFK, GFK | | | | | | |
| 3.10 Graphite | <60 | C8000 | | | | | | |
| 3.11 Verbundwerkstoffe | | | | | | | | |
| 4. Guss | | | | | | | | |
| 4.1 Grauguss | <260 HB | GG10 | 8-14 | 0.1-0.15 | 0.15-0.18 | 0.18-0.22 | 0.22-0.25 | 0.25-0.3 |
| 4.2 Sphäroguss | <310 HB | GGG 40 | 8-14 | 0.1-0.15 | 0.15-0.18 | 0.18-0.22 | 0.22-0.25 | 0.25-0.3 |
| 4.3 Gusseisen mit Kugelgraphit | <280 HB | GTW-55 | 8-14 | 0.1-0.15 | 0.15-0.18 | 0.18-0.22 | 0.22-0.25 | 0.25-0.3 |
| 5. Sonderlegierungen | | | | | | | | |
| 5.1 Titanlegierung | <1200 | TiAl5Sn2,5 | 4-6 | 0.06-0.08 | 0.08-0.1 | 0.1-0.15 | 0.15-0.2 | 0.2-0.25 |
| 5.2 Nickelbasislegierung | <1400 | NiCr21Mo | 4-6 | 0.06-0.08 | 0.08-0.1 | 0.1-0.15 | 0.15-0.2 | 0.2-0.25 |
| 5.3 Superlegierungen | <1400 | X45CrSi 9 3 | 4-6 | 0.06-0.08 | 0.08-0.1 | 0.1-0.15 | 0.15-0.2 | 0.2-0.25 |

