

TABLEAU DES REFERENCES MATIERES

| Groupe de matières | Rm (N/mm ²) | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|---|----------------------------|-----------------------|------------------------------------|--------------|------------|-------------------|----------|-----------------|
| | | | | ALLEMAGNE | | ROYAUME -UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | BS | AFNOR | AIS/SAE |
| Acier de décolletage | 390-710 | | | 1.0722 | 10SPb20 | | 10PbF2 | |
| Acier de décolletage | 410-710 | | | 1.0715 | 9SMn28 | 230M07 | S250 | 1213 |
| Acier de décolletage | 410-710 | | | 1.0718 | 9SMnPb28 | | S250Pb | 12L13 |
| Acier de décolletage | 430-740 | | | 1.0736 | 9SMn36 | 240M07 | S300 | 1215 |
| Acier de décolletage | 430-740 | | | 1.0737 | 9SMnPb36 | | S300Pb | 12L14 |
| Acier pour traitement thermique | 500-650 | | | 1.0402 | C22 | 050A20 | CC20 | 1020 |
| Acier pour traitement thermique | 500-650 | | | 1.1158 | Ck25 | | | 1025 |
| Acier de décolletage | 510-740 | | | 1.0726 | 35S20 | 212M36 | 35MF4 | 1140 |
| Acier pour trempe superficielle | 540-730 | | | 1.1183 | Cf35 | 060A35 | XC38TS | 1035 |
| Acier pour traitement thermique | 550-750 | | | 1.0501 | C35 | 060A35 | CC35 | 1035 |
| Acier de cémentation | 590-780 | | | 1.0401 | C15 | 080M15 | CC12 | 1015 |
| Acier de cémentation | 590-780 | | | 1.1141 | Ck15 | 080M15 | XC12 | 1015 |
| Acier pour traitement thermique | 630-800 | | | 1.0503 | C45 | 080M46 | CC45 | 1045 |
| Acier pour traitement thermique | 630-800 | | | 1.1191 | Ck45 | 080M46 | XC42 | 1045 |
| Acier pour trempe superficielle | 640-830 | | | 1.1213 | Cf53 | 060A52 | XC48TS | 1050 |
| Acier à outils non allié | 640-830 | | | 1.1545 | C105W1 | | Y1105 | W.110 |
| Acier pour traitement thermique | 640-840 | | | 1.1170 | 28Mn6 | 160M28 | 20M5 | 1330 |
| Acier pour traitement thermique | 640-880 | | | 1.1167 | 36Mn5 | | 40M5 | 1335 |
| Acier pour traitement thermique | 690-930 | | | 1.1157 | 40Mn4 | 150M36 | 35M5 | 1039 |
| Acier à outils non allié | 650-750 | | | 1.1663 | C125W | | Y2120 | W.112 |
| Acier pour traitement thermique | 700-900 | | | 1.0535 | C55 | 070M55 | | 1055 |
| Acier pour traitement thermique | 700-900 | | | 1.1203 | Ck55 | 070M55 | XC55 | 1055 |
| Acier pour traitement thermique | 750-900 | | | 1.0601 | C60 | 080A62 | CC55 | 1060 |
| Acier pour traitement thermique | 750-950 | | | 1.1221 | Ck60 | 080A62 | XC60 | 1060 |
| Acier à ressorts | 1000-1100 | | | 1.1274 | Ck101 | 060A96 | | 1095 |
| Acier à haute résistance à chaud | 440-570 | | | 1.5415 | 15Mo3 | 1501-240 | 15D3 | ASTM A20Gr.A |
| Acier à haute résistance à chaud | 440-590 | | | 1.7335 | 13CrMo4 4 | 1501- 620Gr.27 | 15CD3.5 | ASTM A182 |
| Acier à haute résistance à chaud | 440-590 | | | 1.7380 | 10CrMo9 10 | 1501-622 | 12CD9;10 | ASTM A182 |
| Acier à haute résistance à chaud | 450-590 | | | 1.5423 | 16Mo5 | 1503-245- 420 | | 4520 |
| Acier résistant à basse température | 490-640 | | | 1.5622 | 14Ni6 | | 16N6 | ASTM A350LF5 |
| Acier à haute résistance à chaud | 490-640 | | | 1.7715 | 14MoV6 3 | 1503-660- 440 | | |
| Acier résistant à basse température | 510-710 | | | 1.5680 | 12Ni19 | | Z18N5 | 2515 |
| Acier de cémentation | 640-1080 | | | 1.7131 | 16MnCr5 | (527M20) | 16MC5 | 5115 |
| Acier de cémentation | 640-1080 | | | 1.7262 | 15CrMo5 | | 12CD4 | |
| Acier à outils pour travail à froid | 640-670 | | O1 | | | | | O1 |
| Acier à outils pour travail à chaud/à froid | 640-720 | | S7 | | | | | S7 |
| Acier résistant à basse température | 640-840 | | | 1.5662 | X8Ni9 | 1501- 509;510 | | ASTM A353 |
| Acier à roulements | 650-750 | | | 1.3505 | 100Cr6 | 534A99 | 100C6 | 52100 |
| Acier pour traitement thermique | 650-950 | | | 1.7218 | 25CrMo4 | 1717CDS 110 | 25CD4 | 4130 |
| Acier de cémentation | 690-1080 | | | 1.6523 | 21NiCrMo2 | 805M20 | 20NCD2 | 8620 |
| Acier de cémentation | 690-880 | | | 1.7015 | 15Cr3 | 523M15 | 12C3 | 5015 |
| Acier pour traitement thermique | 690-930 | | | 1.5710 | 36NiCr6 | 640A35 | 35NC6 | 3135 |
| Acier pour trempe superficielle | 700-750 | | | 1.7045 | 42Cr4 | | | 5140 |

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| Désignation des groupes de matières | | | |
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| Groupe de matières | Rm (N/mm²) | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|--------------------------------------|---------------|-----------------------|------------------------------------|--------------|---------------|-----------------|----------------------------|------------|
| | | | | ALLEMAGNE | | ROYAUME -UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | BS | AFNOR | AIS/SAE |
| Acier pour traitement thermique | 700-950 | | | 1.7033 | 34Cr4 | 530A32 | 32C4 | 5132 |
| Acier à outils pour travail à froid | 720-775 | | A6 | | | | | A6 |
| Acier pour trempe superficielle | 740-1080 | | | 1.7223 | 41CrMo4 | 708M40 | 42CD4TS | 4140;4142 |
| Acier pour traitement thermique | 750-1100 | | | 1.7220 | 34CrMo4 | 708A37 | 35CD4 | 4137;4135 |
| Acier à outils pour travail à froid | 750-775 | | O7 | | | | | O7 |
| Acier à outils pour travail à froid | 750-800 | | | 1.2542 | 45WScrV7 | BS1 | | S1 |
| Acier à outils pour travail à froid | 750-850 | | | 1.2067 | 100Cr6 | BL3 | Y100C6 | L3 |
| Acier à outils pour travail à froid | 750-850 | | A2 | 1.2363 | X100CrMoV51 | BA2 | Z100CDV5 | A2 |
| Acier à outils pour travail à froid | 750-850 | | | 1.2419 | 105WCr6 | | 105WC13 | |
| Acier à outils pour travail à froid | 750-850 | | | 1.2833 | 100V1 | BW2 | Y1105V | W210 |
| Aciers rapides | 775-990 | | M2 | 1.3343 | S 6-5-2 | BM2 | Z85WDCV 06-05-04-02 | M2 |
| Aciers rapides | 775-990 | | | 1.3348 | S 2-9-2 | | Z100WCWV 09-04-02-02 | M7 |
| Acier pour traitement thermique | 780-1080 | | | 1.3401 | X120Mn12 | Z120M12 | Z120M12 | |
| Acier pour trempe superficielle | 780-1180 | | | 1.8159 | 50CrV4 | 735A50 | 50CV4 | 6150 |
| Aciers rapides | 795-870 | | M3 | | | | | M3 |
| Acier à outils pour travail à froid | 795-910 | | A7 | | | | | A7 |
| Aciers rapides | 800-1050 | | | 1.3355 | S 18-0-1 | BT1 | Z80WCV 18-04-01 | T1 |
| Acier pour traitement thermique | 800-1100 | | | 1.6511 | 36CrNiMo4 | 816M40 | 40NCD3 | 9840 |
| Acier pour traitement thermique | 800-1100 | | | 1.7035 | 41Cr4 | 530M40 | 42C4 | 5140 |
| Acier pour traitement thermique | 800-1200 | | | 1.7225 | 42CrMo4 | 708M40 | 42CD4 | 4140 |
| Acier à outils pour travail à froid | 800-850 | | | 1.2713 | 55NiCrMoV6 | | 55NCDV7 | L6 |
| Aciers rapides | 820-1050 | | | 1.3243 | S 6-5-2-5 | | Z85WDKCV 06-05-05-04-02 | |
| Aciers rapides | 820-1050 | | | 1.3255 | S 18-1-2-5 | BT4 | Z80WKCV 18-05-04-01 | T4 |
| Acier de cémentation | 830-1180 | | | 1.5732 | 14NiCr10 | | 14NC11 | 3415 |
| Acier à outils pour travail à froid | 850-900 | | D2 | 1.2379 | X155CrVMo12-1 | BD2 | Z160CDV12 | D2 |
| Acier à outils pour travail à froid | 850-900 | | | 1.2080 | X210Cr12 | BD3 | Z200Cr12 | D3 |
| Acier à outils pour travail à froid | 850-900 | | | 1.2436 | X210CrW12 | | | |
| Acier à outils pour travail à froid | 850-900 | | | 1.2601 | X165CrMoV12 | | | |
| Acier à outils pour travail à froid | 880-1230 | | | 1.5752 | 14NiCr14 | 655M13 | 12NC15 | 3415 |
| Acier pour traitement thermique | 900-1200 | Nickelvac 4340 | | 1.6582 | 34CrNiMo6 | 817M40 | 35NCD6 | 4340 |
| Aciers pour nitruration | 950-1000 | | | 1.8509 | 41CrAlMo7 | 905M39 | 40CAD6, 12 | |
| Acier à ressorts | 950-1050 | | | 1.0904 | 55Si7 | 250A53 | 55S7 | 9255 |
| Acier de cémentation | 980-1320 | | | 1.6587 | 17CrNiMo6 | 820A16 | 18NCD6 | |
| Acier pour traitement thermique | 980-1420 | | | 1.7361 | 32CrMo12 | 722M24 | 30CD12 | |
| Acier à ressorts | 1050-1100 | | | 1.7176 | 55Cr3 | 527A60 | 55C3 | 5155 |
| Acier à ressorts | 1050-1100 | | | 1.0961 | 60SiCr7 | | 60SC7 | 9262 |
| Aciers pour nitruration | 1080-1270 | | | 1.2606 | 39CrMoV13 9 | BH12 | | H12 |
| Aciers à outils pour travail à chaud | 1180-1570 | | | 1.2343 | | BH11 | | H11 |
| Aciers à outils pour travail à chaud | 1180-1670 | | | 1.2365 | | BH10 | | H10 |
| Aciers à outils pour travail à chaud | 1180-1770 | | H13 | 1.2344 | X40CrMoV51 | BH13 | Z40CDV5 | H13 |
| Aciers à outils pour travail à chaud | 1180-1770 | | | 1.2581 | X30WCrV9 3 | BH21 | Z30WCV9 | H21 |
| Aciers à outils pour travail à chaud | 1270-1670 | | | 1.2678 | | BH19 | | H19 |

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|---|---|---|---|---|--|
|  |  Aciers non alliés |  Aciers inoxydables |  Fontes |  Alliages réfractaires | |
| |  Aciers alliés |  Inox durcis par précipitation |  Aluminium et alliages d'aluminium |  Matériaux durs | |

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| Groupe de matières | Rm (N/mm ²) | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|------------------------------|----------------------------|------------------------|------------------------------------|--------------|-------------------|-----------------|----------------|------------|
| | | | | ALLEMAGNE | | ROYAUME -UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | | AFNOR | AMS |
| Acier inoxydable | 400-600 | Nickelvac 410 / 403 | AL 403 | 1.4000 | X6Cr13 | 403S17 | Z6C13 | 403 |
| Inox moulé réfractaire | 400-600 | | | 1.4865 | G-X40NiCrSi38 18 | 330C11 | | |
| Inox moulé | 440-640 | | | 1.4308 | G-X6CrNi18 9 | 304C15 | Z6CN18.10M | |
| Inox moulé | 440-640 | | | 1.4408 | G-X6CrNiMo18 10 | 316C16 | | |
| Inox moulé | 440-640 | | | 1.4581 | G-X7CrNiMoNb18 10 | 318C17 | Z4CNNDNb18 12M | |
| Inox réfractaire | 450-650 | | AL 405 | 1.4724 | X10CrAl13 | 403S17 | Z10C13 | 405 |
| Acier inoxydable | 450-650 | Nickelvac 410 / 403 | AL 410 | 1.4006 | X10Cr13 | 410S21 | Z10C14 | 410 |
| Acier inoxydable | 450-650 | | AL 430 | 1.4016 | X6Cr17 | 430S15 | Z8C17 | 430 |
| Acier inoxydable | 450-650 | | AL 434 | 1.4113 | X6CrMo17 | 434S17 | Z8CD17.01 | 434 |
| Acier inoxydable | 460-680 | | AL 304L | 1.4306 | X2CrNi19 11 | 304S12 | Z3CN18.10 | 304L |
| Acier inoxydable | 490-690 | | AL 305 | 1.4303 | X5CrNi18 12 | | | 305 |
| Acier inoxydable | 490-690 | Allvac 316 L | AL 316L | 1.4435 | X2CrNiMo18 12 | 316S12 | Z2CND17.13 | 316L |
| Acier inoxydable | 490-690 | | AL 317L | 1.4438 | X2CrNiMo18 16 | 317S12 | Z2CND19.15 | 317L |
| Acier inoxydable | 490-740 | | | 1.4583 | X10CrNiMoNb18 12 | | Z6CNDNb17 13B | 318 |
| Acier inoxydable | 500-550 | | E-Brite Alloy | | | | | ASTM A240 |
| Acier inoxydable | 500-700 | | AL 303 | 1.4305 | X10CrNiS18 9 | 303S21 | Z10CNF 18.09 | 303 |
| Acier inoxydable | 500-700 | | AL 304 | 1.4301 | X5CrNi18 10 | 304S15 | Z6CN18.09 | 304 |
| Acier inoxydable | 500-730 | | AL 321 | 1.4541 | X6CrNiTi18 10 | 2337 | Z6CNT18.10 | 321 |
| Acier inoxydable | 500-730 | | | 1.4571 | X6CrNiMoTi17 12 2 | 320S17 | Z6NDT17.12 | 316Ti |
| Inox réfractaire | 500-750 | | AL 309 | 1.4828 | X15CrNiSi20 12 | 309S24 | Z15CNS20.12 | 309 |
| Inox réfractaire | 500-750 | | AL 310S | 1.4845 | X12CrNi25 21 | 310S24 | Z12CN25 20 | 310S |
| Acier inoxydable | 500-750 | | AL 904L | 1.4539 | | | | ASTM B625 |
| Inox réfractaire | 500-750 | | | 1.4878 | X12CrNiTi18 9 | 321S320 | Z6CNT18.12B | |
| Acier inoxydable | 510-710 | | AL 316 | 1.4401 | X5CrNiMo18 10 | 316S16 | Z6CND17.11 | 316 |
| Acier inoxydable | 510-740 | | AL 347 | 1.4550 | X6CrNiNb18 10 | 347S17 | Z6CNNb18.10 | 347 |
| Inox réfractaire | 520-720 | | | 1.4762 | X10CrAl 24 | | Z10CAS24 | 446 |
| Acier inoxydable | 550-760 | | | 1.4311 | X2CrNiN18 10 | 304S62 | Z2CN18.10 | 304LN |
| Inox réfractaire | 550-800 | | | 1.4841 | X15CrNiSi25 20 | | | 310 |
| Inox réfractaire | 550-800 | | | 1.4864 | X12NiCrSi36 16 | | Z12NCS35.16 | 330 |
| Acier inoxydable | 580-800 | | AL 316LXN | 1.4429 | X2CrNiMoN17 13 3 | | Z2CND17.13 | 316LN |
| Acier inoxydable | 590-780 | | AL 416 | 1.4005 | X12CrS13 | | | 416 |
| Acier inoxydable | 640-840 | | | 1.4104 | X12CrMoS17 | | Z10CF17 | 430F |
| Acier inoxydable | 640-900 | | | 1.4460 | X8CrNiMo27 5 | | | 329 |
| Acier inoxydable | 700-800 | | | 1.4034 | X45Cr13 | 420S45 | Z40CM Z38C13M | |
| Acier inoxydable | 700-950 | | AL 301 | 1.4310 | X12CrNi17 7 | | Z12CN17.07 | 301 |
| Acier inoxydable | 750-800 | | | 1.4027 | G-X20Cr14 | 420C29 | Z20C13M | |
| Acier inoxydable | 750-950 | | AL 420 | 1.4021 | X20Cr13 | | | 420 |
| Inox moulé | 760-960 | | | 1.4313 | X5CrNi13 4 | 425C11 | Z4CND13.4M | |
| Acier inoxydable | 800-900 | | AL 2205 | | | | | ASTM A240 |
| Acier inoxydable | 850-950 | | | 1.4057 | X20CrNi172 | 431S29 | Z15CNi6.02 | 431 |
| Acier inoxydable | 1100-1200 | | AM 350 | | | | | ASTM A693 |
| Inox durci par précipitation | | | AL 13-8 | | | | | 13-8 PH |
| Inox durci par précipitation | | Nickelvac 15-5 PH | AL 15-5 | 1.4540 | X4CrNiCuNb164 | | Z6CNU15.05 | 15-5 PH |
| Inox durci par précipitation | | | AL 15-7 | 1.4532 | X7CrNiMoAl157 | | Z8CNDA15.07 | 15-7 PH |
| Inox durci par précipitation | | Nickelvac 17-4 PH | AL 17-4 | 1.4542 | X5CrNiCuNb174 | | Z6CNU17.04 | 17-4 PH |
| Inox durci par précipitation | | | AL 17-7 | 1.4568 | X7CrNiAl177 | | Z8CNA17.07 | 17-7 PH |

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|  | P Aciers non alliés | M Aciers inoxydables | K Fontes |
| | P Aciers alliés | M Inox durcis par précipitation | N Aluminium et alliages d'aluminium |
| | | | S Alliages réfractaires |
| | | | H Matériaux durs |

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| Cr | Ni | C | Mn | Si | P | S | Mo | Cu | Ti | Autres | Plage des vitesses de coupe Vc m/min | | | | | | | | | | |
|------|------|-------|------|------|-------|-------|------|------|------|--------------|--------------------------------------|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | | | | | | | | 50 | 100 | 150 | 200 | 250 | 300 | 350 | | | | |
| 12.0 | | 0.15 | 0.5 | 0.50 | 0.02 | 0.01 | | | | | | | | | | | | | | | |
| 18.8 | 38.0 | 0.4 | 1.0 | 1.75 | 0.045 | 0.03 | | | | W 4.75 | | | | | | | | | | | |
| 19.0 | 10.0 | 0.07 | 1.5 | 2.0 | 0.045 | 0.03 | | | | | | | | | | | | | | | |
| 19.0 | 11.0 | 0.07 | 1.5 | 1.5 | 0.045 | 0.03 | 2.5 | | | | | | | | | | | | | | |
| 19.0 | 11.5 | 0.06 | 1.5 | 1.5 | 0.045 | 0.03 | 2.25 | | | | | | | | | | | | | | |
| 12.0 | | 0.08 | 1.0 | 0.50 | 0.04 | 0.03 | | | | Al 0.10-0.30 | | | | | | | | | | | |
| 12.0 | | 0.15 | 0.5 | 0.50 | 0.02 | 0.01 | 0.5 | 0.5 | | | | | | | | | | | | | |
| 16.0 | | 0.08 | 1.0 | 1.0 | 0.04 | 0.03 | | | | | | | | | | | | | | | |
| 17.0 | | 0.08 | | | | | 0.75 | | | | | | | | | | | | | | |
| 19.0 | 10.0 | 0.015 | 1.0 | 0.5 | 0.023 | 0.015 | | | | | | | | | | | | | | | |
| 18.0 | 11.5 | 0.12 | 2.0 | 1.0 | 0.04 | 0.03 | | | | | | | | | | | | | | | |
| 17.0 | 12.0 | 0.015 | 1.0 | 0.5 | 0.023 | 0.015 | 2.5 | | | | | | | | | | | | | | |
| 19.0 | 13.0 | 0.015 | 1.0 | 1.0 | 0.023 | 0.015 | 3.5 | | | | | | | | | | | | | | |
| 18.0 | 14.0 | 0.08 | 2.0 | | | | 2.0 | | | | | | | | | | | | | | |
| 26 | | 0.003 | | | | | 1 | | | | | | | | | | | | | | |
| 19.5 | 10.5 | 0.16 | 1.5 | 2.0 | 0.04 | 0.3 | 0.6 | | | | | | | | | | | | | | |
| 19.5 | 9.0 | 0.08 | 1.5 | 2.0 | 0.04 | 0.04 | | | | | | | | | | | | | | | |
| 18.0 | 9.5 | 0.08 | 2.0 | 1.0 | 0.04 | 0.03 | | | 0.40 | | | | | | | | | | | | |
| 17.5 | 12.0 | 0.08 | 2.0 | 1.0 | 0.045 | 0.03 | 2.25 | | 5.0 | | | | | | | | | | | | |
| 23.5 | 14.0 | 0.20 | 1.5 | 2.0 | 0.04 | 0.04 | | | | | | | | | | | | | | | |
| 25.0 | 20.5 | 0.15 | 2.0 | 0.75 | 0.045 | 0.03 | | | | | | | | | | | | | | | |
| 20.5 | | | | | | | 4.5 | 1.5 | | | | | | | | | | | | | |
| 18.0 | 10.5 | 0.12 | 2.0 | 1.0 | 0.045 | 0.03 | | | 0.40 | Al 0.40 | | | | | | | | | | | |
| 17.0 | 13.0 | 0.08 | 2.0 | 0.75 | 0.04 | 0.03 | 1.5 | 0.50 | | | | | | | | | | | | | |
| 18.0 | 11.0 | 0.08 | 2.0 | 1.0 | 0.045 | 0.03 | | | | | | | | | | | | | | | |
| 25.0 | | 0.12 | 1.0 | 1.0 | 0.04 | 0.03 | | | | Al 1.50 | | | | | | | | | | | |
| 18.0 | 10.0 | 0.03 | 2.0 | 1.0 | 0.045 | 0.03 | | | | N 0.16 | | | | | | | | | | | |
| 24.5 | 20.5 | 0.18 | 2.0 | 1.5 | 0.04 | 0.03 | 0.5 | 0.5 | | | | | | | | | | | | | |
| 15.0 | 35.0 | 0.15 | 1.0 | 2.5 | 0.04 | 0.04 | | | | | | | | | | | | | | | |
| 17.5 | 13.0 | 0.03 | 2.0 | 1.0 | 0.045 | 0.025 | 2.75 | | | N 0.16 | | | | | | | | | | | |
| 13.0 | | 0.15 | 1.25 | 1.0 | 0.07 | 0.07 | 0.60 | | | | | | | | | | | | | | |
| 17.0 | | 0.12 | 1.25 | 1.0 | 0.06 | 0.15 | 0.5 | | | | | | | | | | | | | | |
| 25.5 | 3.5 | 0.1 | | | 0.04 | 0.03 | 1.0 | | | | | | | | | | | | | | |
| 13.5 | | 0.5 | 1.0 | 1.0 | 0.045 | 0.03 | | | | | | | | | | | | | | | |
| 17.0 | 7.0 | 0.14 | 2.0 | 1.0 | 0.045 | 0.03 | | | | | | | | | | | | | | | |
| 13.5 | 1.0 | 0.2 | 1.0 | 1.0 | 0.045 | 0.03 | | | | | | | | | | | | | | | |
| 12.5 | | 0.20 | 1.0 | 1.0 | 0.04 | 0.04 | | | | | | | | | | | | | | | |
| 13.0 | 4.5 | 0.07 | 1.5 | 1.0 | 0.035 | 0.025 | 0.7 | | | | | | | | | | | | | | |
| 22 | 5.5 | | | | | | 3 | | | N 0.16 | | | | | | | | | | | |
| 16.0 | 2.0 | 0.20 | 1.0 | 1.0 | 0.04 | 0.03 | | | | | | | | | | | | | | | |
| 16.5 | 4.3 | 0.08 | | | | | 2.8 | | | | | | | | | | | | | | |
| 13 | 8 | | | | | | 2.2 | | | Al 1.2 | | | | | | | | | | | |
| 14.8 | 4.5 | 0.03 | 0.5 | 0.5 | 0.02 | 0.015 | | 3.5 | | Cb 0.3 | | | | | | | | | | | |
| 15.0 | 7.0 | 0.045 | 0.5 | 0.5 | 0.02 | 0.015 | 2.5 | | | Al 1.15 | | | | | | | | | | | |
| 16.3 | 4.0 | 0.035 | 0.5 | 0.5 | 0.02 | 0.015 | | 4.0 | | Cb 0.3 | | | | | | | | | | | |
| 17.0 | 7.0 | 0.045 | 0.5 | 0.5 | 0.02 | 0.02 | | | | Al 1.15 | | | | | | | | | | | |

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| Désignation des groupes de matières | | | | | | | | |
|---|--|-------------------|--|-------------------------------|--|-----------------------------------|--|-----------------------|
|  | P  | Aciers non alliés | M  | Aciers inoxydables | K  | Fontes | S  | Alliages réfractaires |
| | P  | Aciers alliés | M  | Inox durcis par précipitation | N  | Aluminium et alliages d'aluminium | H  | Matériaux durs |

TABLEAU DES REFERENCES MATIERES

| Groupe de matières | HBN | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|--|---------|--------------------|------------------------------|--------------|-------------|-------------|------------|------------|
| | | | | ALLEMAGNE | | ROYAUME UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | BS | AFNOR | ASTM/SAE |
| Fonte grise | 175 | | | 0.6010 | GG 10 | Grade 100 | Ft 10 D | No 20 B |
| Fonte grise | 185 | | | 0.6015 | GG 15 | Grade 150 | Ft 15 D | No 25 B |
| Fonte grise | 205 | | | 0.6020 | GG 20 | Grade 260 | Ft 20 D | No 30 B |
| Fonte grise | 220 | | | 0.6025 | GG 25 | Grade 220 | Ft 25 D | No 35 B |
| Fonte grise | 230 | | | 0.6030 | GG 30 | Grade 300 | R 30 D | No 45 B |
| Fonte grise | 235 | | | 0.6035 | GG 35 | Grade 350 | Ft 35 D | No 50 B |
| Fonte grise | 250 | | | 0.6040 | GG 40 | Grade 400 | Ft 40 D | No 55 B |
| Fonte sphéroïdale, / nodulaire / ductile | 150-180 | | | | GGG 35.3 | 350/22 | FGS 350-22 | 60-40-18 |
| Fonte sphéroïdale, / nodulaire / ductile | 155-220 | | | 0717-02 | GGG 40 | 420/12 | | 65-45-12 |
| Fonte sphéroïdale, / nodulaire / ductile | 190-255 | | | 0727-02 | GGG 50 | 500/7 | FGS 500-7 | 80-55-06 |
| Fonte sphéroïdale, / nodulaire / ductile | 200-260 | | | 0732-03 | GGG 60 | 600/3 | FGS 600-3 | 80-60-03 |
| Fonte sphéroïdale, / nodulaire / ductile | 240-300 | | | 0737-01 | GGG 70 | 700/2 | FGS 700-2 | 100-70-03 |
| Fonte sphéroïdale, / nodulaire / ductile | 265-300 | | | | GGG 80 | 900/2 | FGS 900-2 | 120-90-02 |
| Fonte malléable | 150 | | | | GTS-35-10 | B 340/12 | MN 35-10 | 32510 |
| Fonte malléable | 175 | | | 0.8145 | GTS-45-06 | P 440/7 | | 40010 |
| Fonte malléable | 205 | | | 0.8155 | GTS-55-04 | P 510/4 | MP 50-5 | 50005 |
| Fonte malléable | 230 | | | 0.8165 | GTS-65-02 | P 570/3 | Mn 650-3 | A220-70003 |
| Fonte malléable | 265 | | | 0.8170 | GTS-70-02 | P 690/2 | Mn 700-2 | A220-80002 |
| Alliage d'aluminium | | | | 3.0255 | Al99,9 | 1B | A5 | 1050 |
| Alliage d'aluminium | | | | 3.0515 | AlMn | N3 | | |
| Alliage d'aluminium | | | | 3.0615 | AlMgSiPb | | | |
| Alliage d'aluminium | | | | 3.1325 | AlCuMg1 | | A-U4G | 2017 |
| Alliage d'aluminium | | | | 3.1355 | AlCuMg2 | L97 | A-U4G1 | 2024 |
| Alliage d'aluminium | | | | 3.1645 | AlCuMgPb | | | |
| Alliage d'aluminium | | | | 3.1655 | AlCuBiPb | FC1 | A-U5PbBi | 2011 |
| Alliage d'aluminium | | | | 3.2245 | AlSi5 | | | |
| Alliage d'aluminium | | | | 3.2305 | AlRMgSi | | | |
| Alliage d'aluminium | | | | 3.2315 | AlMgSi1 | H30 | | 6351 |
| Alliage d'aluminium | | | | 3.3206 | AlMgSi0,5 | H9 | | 6063 |
| Alliage d'aluminium | | | | 3.3309 | AlRMg0,5 | | | |
| Alliage d'aluminium | | | | 3.3315 | AlMg1 | N41 | A-G0,6 | 5005 |
| Alliage d'aluminium | | | | 3.3316 | AlMg1,5 | 3L44 | A-G1,5 | 5050 |
| Alliage d'aluminium | | | | 3.3319 | AlRMg1 | | | |
| Alliage d'aluminium | | | | 3.3523 | AlMg2,5 | 2L56 | A-G2,5C | 5052 |
| Alliage d'aluminium | | | | 3.3535 | AlMg3 | N5 | A-G3M | 5754 |
| Alliage d'aluminium | | | | 3.3545 | AlMg4Mn | | A-G4MC | 5086 |
| Alliage d'aluminium | | | | 3.3547 | AlSiMg4,5Mn | N8 | A-G4,5MC | 5083 |
| Alliage d'aluminium | | | | 3.3549 | AlMg5 | N6 | | 5056 |
| Alliage d'aluminium | | | | 3.4365 | AlZnMgCu1,5 | DTD5074 | A-Z5GU | 7075 |
| Alliage d'aluminium | | | | | AlZnMg1 | | | 7005 |
| Alliage d'aluminium | | | | | AlMg2,5Mn | N51 | A-G2,5MC | 5454 |
| Alliage d'aluminium | | | | | AlSi3,5 | | | |

Star Guide Préconisation d'outils

| Désignation des groupes de matières | | | |
|---|--|--|--|
|  | P  Aciers non alliés | M  Aciers inoxydables | K  Fontes |
| | P  Aciers alliés | M  Inox durcis par précipitation | N  Aluminium et alliages d'aluminium |
| | | | S  Alliages réfractaires |
| | | | H  Matériaux durs |

TABLEAU DES REFERENCES MATIERES

| Groupe de matières | Désignation commerciale | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|--------------------|-------------------------|--------------------|------------------------------|--------------|-----------------|--------------|--------------|------------------|
| | | | | ALLEMAGNE | | ROYAUME -UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | | AFNOR | AMS |
| Alliage base fer | VascoMax C-250 | VascoMax C-250 | | | | | | 6501, 6512, 6520 |
| Alliage base fer | VascoMax C-350 | VascoMax C-350 | | | | | | |
| Alliage base fer | VascoMax C-200 | VascoMax C-200 | | | | | | |
| Alliage base fer | VascoMax C-300 | VascoMax C-300 | | | | | | 6514 |
| Alliage base fer | VascoMax T-200 | VascoMax T-200 | | | | | | |
| Alliage base fer | VascoMax T-250 | VascoMax T-250 | | | | | | 6518, 6519, 6591 |
| Alliage base fer | Greek Ascology | | AL 418 | | | | | 5508 |
| Alliage base fer | Jethete M-152 | | | | | | Z12 CND 12 | 5718, 5719 |
| Alliage base fer | Haynes 556 | | | | X12CrCoNi2120 | | | 5768 |
| Alliage base fer | N 155 | | | | | | Z12 CNKDW 20 | 5768 |
| Alliage base fer | S 590 | | | | X40CoCrNi2020 | | Z42 CKNDW | 5533 |
| Alliage base fer | Crucible A286 | | ALTEMP A 286 | 1.4980 | | HR 5152 | Z06 NCT 25 | ASTM 368 |
| Alliage base fer | Disaloy 16/25/6 | | | | | | Z3 NCT 25 | 5725 |
| Alliage base fer | AL-6XN Alloy | | AL-6XN Alloy | | | | | ASTM SB688 |
| Alliage base fer | Disaloy 24 | | | | | | Z3 NCT 25 | ASTM A638 |
| Alliage base fer | Armco 18 | | | | | | | |
| Alliage base fer | Incoloy 801 | | | | G-X50CrNi3030 | | | 5552 |
| Alliage base fer | Incoloy 800 | Nickelvac 800 | AL 800 | | X10NiCrAlTi3220 | 3082-76 | 25 NC 3520 | ASME SB 409 |
| Alliage base fer | Incoloy 802 | | | | | | | |
| Alliage base fer | N 156 | | | | | | | |
| Alliage base fer | 20CB-3 | | AL 20 | | | | | ASTM B463 |
| Alliage base fer | Sanicro 30 | | | | X2NiCrAlTi3220 | | | |
| Alliage base fer | Incoloy 803 | | | | | | | |
| Alliage base fer | Allvac 330 | Allvac 330 | | | | | | 5592, 5716 |
| Alliage base fer | AL 36 | | AL 36 | | | | | ASTM F1684 |
| Alliage base fer | Incoloy DS | | | | X12NiCrSi3616 | 3072-76 | | |
| Alliage base fer | AL 42 | | AL 42 | | | | | ASTM F30 |
| Alliage base fer | Armco 20-45-5 | | | | | | | |
| Alliage base fer | AL 4750 | | AL 4750 | | | | | ASTM B753 |
| Alliage base fer | ALLOY 21-6-9 | | ALLOY 21-6-9 | | | | | ASTM A666 |
| Alliage base fer | Vasco 13-8 Mo | Vasco 13-8 Mo | | | | | | 5629 |

| Groupe de matières | Désignation commerciale | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|---------------------|-------------------------|--------------------|------------------------------|--------------|--------------|--------------|----------|------------|
| | | | | ALLEMAGNE | | ROYAUME -UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | | AFNOR | AMS |
| Alliage base cobalt | MP35N | Allvac 35N | | | | | | |
| Alliage base cobalt | L 605 | Nickelvac L-605 | | | CoCr20W15Ni | | KC 20 WN | 5759 |
| Alliage base cobalt | Nickelvac TJA-1537 | Nickelvac TJA-1537 | | | | | | ASTM F1537 |
| Alliage base cobalt | Altemp S 816 | | | | CoCr20Ni20W | | | 5534 |
| Alliage base cobalt | HS 21 | | | | CoCr28Mo | 3531 | | ASTM F-75 |
| Alliage base cobalt | HS 25 | | | | CoCr20W15Ni | | KC 20 WN | AISI 670 |
| Alliage base cobalt | HS 30 | | | | CoCr26Ni14Mo | | | |
| Alliage base cobalt | HS 31 | | | | CoCr25NiW | 3146 | KC 25 NW | ASTM A567 |
| Alliage base cobalt | HS 36 | | | | CoCr19W14NiB | | | |
| Alliage base cobalt | Jetalloy 209 | | | | | | | |
| Alliage base cobalt | L 251 | | | | | | | |
| Alliage base cobalt | M 203 | | | | | | | |

Star Guide Préconisation d'outils









| Désignation des groupes de matières | | | |
|---|---|---|---|
|  |  |  |  |
|  |  |  |  |

TABLEAU DES REFERENCES MATIERES

| Ni | Co | Cr | Mo | W | Si | Mn | C | Al | Ti | P | S | Autres | Plage des vitesses de coupe Vc m/min. | | | | | |
|------|------|------|------|-----|------|------|------|------|------|-------|-------|---------|---------------------------------------|----|----|-----|-----|--|
| | | | | | | | | | | | | | 25 | 50 | 75 | 100 | 125 | |
| 18.5 | 7.8 | | 4.8 | | 0.05 | 0.05 | 0.02 | 0.1 | 0.4 | 0.005 | 0.005 | | | | | | | |
| 18.5 | 12.0 | | 4.8 | | 0.05 | 0.05 | 0.02 | 0.1 | 1.4 | 0.005 | 0.005 | | | | | | | |
| 18.5 | 8.5 | | 3.25 | | 0.05 | 0.05 | 0.01 | | 0.2 | 0.005 | 0.005 | | | | | | | |
| 18.5 | 8.8 | | 4.8 | | 0.05 | 0.05 | 0.02 | 0.1 | 0.73 | 0.005 | 0.005 | | | | | | | |
| 18.5 | | | 3.0 | | 0.05 | 0.05 | 0.01 | | 0.7 | 0.005 | 0.005 | | | | | | | |
| 18.5 | | | 3.0 | | 0.03 | 0.05 | 0.02 | 0.1 | 1.4 | 0.005 | 0.005 | | | | | | | |
| 2 | | 12 | | 2.5 | | | 0.19 | | | | | | | | | | | |
| 2.5 | | 12 | 1.7 | | | | 0.15 | | | | | V 0.3 | | | | | | |
| 20 | 20 | 21 | 3 | 2.5 | | | 0.1 | | | | | Nb + Ta | | | | | | |
| 20 | 20 | 21 | 3 | 2.5 | 0.5 | 1.5 | 0.15 | | | | | Nb 1.0 | | | | | | |
| 20 | 20 | 21 | 4 | 4 | | | 0.43 | | | | | | | | | | | |
| 25 | | 14 | 1.3 | | 0.5 | 1.3 | 0.05 | 0.2 | 2.1 | | | | | | | | | |
| 25 | | 16 | 6 | | 0.7 | 1.35 | 0.12 | | 0.3 | | | Nb 0.4 | | | | | | |
| 25 | | 20.5 | 6.5 | | | | 0.02 | | | | | N 0.2 | | | | | | |
| 26 | | 13.5 | 2.7 | | 0.8 | 0.9 | 0.04 | 0.1 | 1.7 | | | | | | | | | |
| 3.7 | | 17.2 | | | 0.47 | 12.5 | 0.06 | | | | | | | | | | | |
| 32 | | 20.5 | | | 0.5 | 0.8 | 0.05 | | 1.1 | | | | | | | | | |
| 32.5 | | 21.0 | | | 0.5 | 0.75 | 0.05 | 0.37 | 0.37 | | 0.007 | Cu 0.37 | | | | | | |
| 32.5 | | 21.5 | | | 0.4 | 0.8 | 0.4 | | | | | | | | | | | |
| 33 | 24 | 17 | 3 | 2 | | | 0.33 | | | | | | | | | | | |
| 33 | | 20 | 2.2 | | | | | | | | | Cu 3.3 | | | | | | |
| 34 | | 22 | | | 0.55 | 0.55 | 0.03 | 0.3 | 0.5 | | | Cu 0.1 | | | | | | |
| 35 | | 25 | | | | | 0.08 | 0.15 | 0.15 | | | | | | | | | |
| 35.5 | | 18.5 | | | 1.13 | 1.0 | 0.04 | | | 0.01 | 0.01 | Cu 0.5 | | | | | | |
| 36 | | | | | | | | | | | | | | | | | | |
| 37 | | 18 | | | 2.3 | 1.0 | 0.06 | | | | | | | | | | | |
| 41 | | | | | | | | | | | | | | | | | | |
| 46 | | 20 | 2.3 | | 1.0 | 5 | 0.08 | | | | | Nb 0.4 | | | | | | |
| 49 | | | | | | | | | | | | | | | | | | |
| 6.5 | | 21 | | | | 6.0 | | | | | | No 0.3 | | | | | | |
| 8.0 | | 12.8 | 2.3 | | 0.05 | 0.10 | 0.03 | 1.05 | | 0.005 | 0.004 | | | | | | | |

| Ni | Fe | Cr | Mo | W | Si | Mn | C | Al | Ti | P | S | Autres | Plage des vitesses de coupe Vc m/min. | | | | | |
|------|------|------|-----|----|------|-----|-------|------|------|---|---|--------|---------------------------------------|----|----|-----|-----|--|
| | | | | | | | | | | | | | 25 | 50 | 75 | 100 | 125 | |
| 35 | | 20 | 9.8 | | | | 0.013 | | | | | | | | | | | |
| 10 | 0.5 | 20 | | 15 | | 1.7 | 0.1 | | | | | | | | | | | |
| 0.2 | 0.25 | 28 | 6 | | 0.5 | 0.5 | 0.06 | | | | | N 0.2 | | | | | | |
| 20 | 4 | 20 | 4 | 4 | 0.4 | 1.2 | | | 0.38 | | | | | | | | | |
| 3 | 1 | 27 | 5 | | 0.6 | 0.6 | | | 0.25 | | | | | | | | | |
| 10 | 3 | 20 | | 15 | 2 | 1.5 | | | 0.1 | | | | | | | | | |
| 16 | 1 | 24 | 6 | | 0.6 | 0.6 | | | 0.4 | | | | | | | | | |
| 10 | 1.5 | 25 | | 8 | 0.75 | 0.6 | | | 0.4 | | | | | | | | | |
| 10 | 2 | 18 | | 15 | | 1.5 | | | 0.4 | | | | | | | | | |
| 10 | 1 | 20 | | 15 | | | | 2.0 | 0.02 | | | | | | | | | |
| 10 | 1 | 19 | | 14 | | | | | 0.4 | | | | | | | | | |
| 24.5 | 1 | 19.5 | | 12 | 1 | 0.8 | 2.15 | 24.5 | 0.07 | | | | | | | | | |

Star Guide Préconisation d'outils

| Désignation des groupes de matières | | | | | | | | |
|-------------------------------------|----------|-------------------|----------|-------------------------------|----------|-----------------------------------|----------|-----------------------|
| | P | Aciers non alliés | M | Aciers inoxydables | K | Fontes | S | Alliages réfractaires |
| | P | Aciers alliés | M | Inox durcis par précipitation | N | Aluminium et alliages d'aluminium | H | Matériaux durs |

TABLEAU DES REFERENCES MATIERES

| Groupe de matières | Désignation commerciale | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|---------------------|-------------------------|--------------------|------------------------------|--------------|------------------|--------------|-----------|------------|
| | | | | ALLEMAGNE | | ROYAUME -UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | | AFNOR | AMS |
| Alliage base cobalt | M 204 | | | | | | | |
| Alliage base cobalt | M 205 | | | | | | | |
| Alliage base cobalt | MAR-M 302 | | | | CoCrW10TaZrB | | | |
| Alliage base cobalt | MAR-M 322 | | | | CoCr22W9TaZrNb | | | |
| Alliage base cobalt | MAR-M 509 | | | | CoCr24Ni10WtaZrB | 3146-3 | | |
| Alliage base cobalt | MAR-M 905 | | | | | | | |
| Alliage base cobalt | MAR-M 918 | | | | CoCr20Ni20Ta | | | |
| Alliage base cobalt | Stellite 1 | | | | | | KC 33 W13 | |
| Alliage base cobalt | Stellite 6 | | | | | | KC 26 NW | |
| Alliage base cobalt | Stellite 12 | | | | | | KC 28 W8 | |
| Alliage base cobalt | V-36 | | | | CoCr25Ni20M0WNb | | | |
| Alliage base cobalt | WI-52 | | | | CoCr21Mo11W | | | |
| Alliage base cobalt | X 40 | | | | CoCr25NiW | 3146-2 | | ASTM A567 |
| Alliage base cobalt | X 45 | | | | | | | |
| Alliage base cobalt | X 50 | | | | | | | |

| Groupe de matières | Désignation commerciale | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|---------------------|-------------------------|--------------------|------------------------------|--------------|------------------|--------------|-----------|------------|
| | | | | ALLEMAGNE | | ROYAUME -UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | | AFNOR | AMS |
| Alliage base nickel | AL 22 | | AL 22 | | | | | ASME SB575 |
| Alliage base nickel | Allcor | Allvac Allcorr | | | | | | |
| Alliage base nickel | Astroloy | Allvac Astroloy | | | | | | |
| Alliage base nickel | Duranickel 310 | | | | | | | |
| Alliage base nickel | GMR 235 | | | | | | | AISI:686 |
| Alliage base nickel | GMR 235-D | | | | NiCr16MoAl | | | |
| Alliage base nickel | Hastelloy B | Nickelvac H-B | | | S-NiMo30 | | ND27FeV | 5396A |
| Alliage base nickel | Hastelloy B-2 | Nickelvac H-B-2 | | | | | | |
| Alliage base nickel | Hastelloy C | | | | NiCr17Mo17FeW | | NC17DWY | 5388C |
| Alliage base nickel | Hastelloy D | | | | | | | |
| Alliage base nickel | Hastelloy N | Nickelvac H-N | | | | | | |
| Alliage base nickel | Hastelloy R235 | | | | | | | |
| Alliage base nickel | Hastelloy W | Nickelvac H-W | | | | | | |
| Alliage base nickel | Hastelloy X | Nickelvac H-X | ALTEMP HX | 2.4665 | NiCr22FeMo | HR6,204 | NC22FeD | 5536 |
| Alliage base nickel | Haynes 75 | | | | | | | |
| Alliage base nickel | HS 27 | | | | NiCo32Cr26Mo | | KC20WN | |
| Alliage base nickel | IN 100 | | | | NiCo15Cr10MoAlTi | | NK15CAT | 5397 |
| Alliage base nickel | IN 713 | | | | | | | |
| Alliage base nickel | Incoloy 020 | | | 2.4660 | | | | ASME SB463 |
| Alliage base nickel | Incoloy 804 | | | | | | | |
| Alliage base nickel | Incoloy 825 | Nickelvac 825 | AL 825 | 2.4858 | NiCr21Mo | 3072-76 | NC21FeDU | ASME SB424 |
| Alliage base nickel | Incoloy 901 | | | | NiFe35Cr14MoTi | | Z8NCDT42 | 5660 |
| Alliage base nickel | Incoloy 903 | | | | | | | |
| Alliage base nickel | Incoloy 925 | | | | | | | |
| Alliage base nickel | Inconel 600 | Nickelvac 600 | AL 600 | 2.4816 | NiCr15Fe | 3072-76 | NC15Fe | 5540 |
| Alliage base nickel | Inconel 601 | Nickelvac 601 | AL 601 | 2.4851 | | | | 5715 |
| Alliage base nickel | Inconel 617 | Nickelvac 617 | | 2.4663 | | | | |
| Alliage base nickel | Inconel 622 | | | 2.4602 | | | | |
| Alliage base nickel | Inconel 625 | Nickelvac 625 | ALTEMP 625 | 2.4856 | NiCr22Mo9Nb | | NC22FeDNB | ASME SB443 |

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| Désignation des groupes de matières | | | | | |
|---|--|--|--|--|--|
|  | P  Aciers non alliés | M  Aciers inoxydables | K  Fontes | S  Alliages réfractaires | |
| | P  Aciers alliés | M  Inox durcis par précipitation | N  Aluminium et alliages d'aluminium | H  Matériaux durs | |

TABLEAU DES REFERENCES MATIERES

| Ni | Co | Cr | Mo | W | Si | Mn | C | Al | Ti | P | S | Autres | Plage des vitesses de coupe Vc m/min. | | | | | | |
|------|-----|------|----|-----|------|------|------|------|------|---|---|-----------------|---------------------------------------|----|----|-----|-----|--|--|
| | | | | | | | | | | | | | 25 | 50 | 75 | 100 | 125 | | |
| 24.5 | | 18.5 | | 12 | 1 | 1 | | | 0.07 | | | | | | | | | | |
| 24.5 | | 18.5 | | 12 | | | 2.75 | | 0.07 | | | | | | | | | | |
| | | 21.5 | | 10 | | | | | 0.85 | | | Ta 9.0 | | | | | | | |
| | | 21.5 | | 9 | 0.1 | 0.1 | | 0.75 | 1.0 | | | Ta 4.5, Zr 2.25 | | | | | | | |
| 10 | 1 | 23.5 | | 7 | 0.1 | 0.1 | | 0.2 | 0.6 | | | Ta 3.5, Zr 0.5 | | | | | | | |
| 20 | | 20 | | | | | | 0.5 | 0.05 | | | Ta 7.5, Zr 0.1 | | | | | | | |
| 20 | 0.4 | 20 | | | 0.1 | 0.1 | | | 0.05 | | | Ta 7.5, Zr 0.1 | | | | | | | |
| | | 33 | | 13 | | | 2.5 | | | | | | | | | | | | |
| | | 26 | | 5 | | | 1.0 | | | | | Nb 6.0 | | | | | | | |
| | | 29 | | 9 | | | 1.8 | | | | | | | | | | | | |
| 20 | 3 | 25 | 4 | 2 | 0.4 | 1 | | | 0.26 | | | Nb 2.0 | | | | | | | |
| 1 | 2 | 21 | | 11 | 0.25 | | | | 0.45 | | | Nb 2.0 | | | | | | | |
| 10.5 | 1.5 | 25.5 | | 7.5 | 0.75 | 0.75 | | | 0.5 | | | | | | | | | | |
| 10.5 | 2 | 25.5 | | 7 | | 0.7 | | | 0.25 | | | B 0.01 | | | | | | | |
| 20.5 | 4 | 22.5 | | 12 | | | | | 0.75 | | | | | | | | | | |

| Fe | Co | Cr | Mo | W | Si | Mn | C | Al | Ti | P | S | Autres | Plage des vitesses de coupe Vc m/min. | | | | | | |
|------|------|-------|------|------|------|------|-------|------|------|------|-------|---------------|---------------------------------------|----|----|-----|-----|--|--|
| | | | | | | | | | | | | | 25 | 50 | 75 | 100 | 125 | | |
| 2.5 | | 20.6 | 13.9 | 2.65 | | | | | | | | | | | | | | | |
| | | 31.0 | 10.0 | 2.0 | | | 0.02 | 0.25 | 0.25 | | | Nb 0.4 | | | | | | | |
| | 17.0 | 15.0 | 5.0 | | | | 0.04 | 4.0 | 3.5 | | | B 0.025 | | | | | | | |
| 0.6 | | | 0.5 | | 1.0 | 0.5 | | 4.4 | 0.6 | | | | | | | | | | |
| 10.0 | | 15.5 | 5.2 | | 0.4 | 0.2 | 0.15 | 3.0 | 2.0 | | | | | | | | | | |
| 4.5 | | 15.5 | 5.0 | | | | 0.15 | 3.5 | 2.5 | | | B0.05 | | | | | | | |
| 5.0 | 2.0 | 1.5 | 28.0 | | 0.05 | 0.5 | 0.02 | | | | | V 0.4 | | | | | | | |
| 1.0 | 0.5 | 0.5 | 16.0 | | 0.05 | 0.5 | 0.01 | | | 0.02 | 0.015 | | | | | | | | |
| 6.0 | 2.0 | 15.0 | 17.0 | 5 | | | 0.04 | | | | | | | | | | | | |
| 2.0 | | 1.0 | | | 9.0 | 1.0 | 0.1 | | | | | Cu 3.0 | | | | | | | |
| 4.0 | | 7.0 | 16.5 | | | | 0.02 | | | | | | | | | | | | |
| 10.0 | 2.5 | 15.5 | 5.5 | | | | 0.15 | 2 | 2.5 | | | | | | | | | | |
| 4.0 | | 5.0 | 24.5 | | | | 0.02 | | | | | | | | | | | | |
| 18 | 1.5 | 22 | 9.0 | 0.6 | | | 0.1 | | | | | | | | | | | | |
| 5.0 | | 20.0 | | | | | 0.12 | 0.25 | 0.4 | | | Cu 0.5 | | | | | | | |
| 2.0 | 31.5 | 26.0 | 6.0 | | | | 0.4 | | | | | | | | | | | | |
| | 15.0 | 10.0 | 3.0 | | | | 0.18 | 5.5 | 4.7 | | | V 1.0 | | | | | | | |
| 2.5 | | 13.0 | 4.6 | | 0.4 | 0.2 | 0.18 | 6.0 | 0.8 | | | Nb 2.6 | | | | | | | |
| 37 | | 20 | 2.5 | | | | | | | | | Nb 0.6 Cu 3.5 | | | | | | | |
| 25.4 | | 29.5 | | | 0.5 | 0.75 | 0.06 | 0.25 | 0.6 | | | Cu 0.4 | | | | | | | |
| 30 | | 21.5 | | 3.0 | 0.5 | 0.65 | 0.03 | 0.2 | 0.9 | | | Cu 2.25 | | | | | | | |
| 35.3 | | 13.45 | 6.20 | | 0.22 | 0.48 | 0.05 | | 2.5 | | | | | | | | | | |
| 42.0 | 15.0 | | | | | | | 0.7 | 1.4 | | | Nb3.0 | | | | | | | |
| 28 | | 21 | 3 | | | | | 0.3 | 2.1 | | | Cu 1.8 | | | | | | | |
| 8.0 | | 15.5 | | | | | 0.075 | | | | | | | | | | | | |
| 14.0 | | 23.0 | | | 0.2 | 0.5 | 0.05 | 1.3 | | | 0.008 | Cu 0.5 | | | | | | | |
| | 12.5 | 22 | 9.0 | | | | 0.07 | 1.0 | | | | | | | | | | | |
| 2.3 | | 20.5 | 14.2 | 3.2 | | | | | | | | | | | | | | | |
| 2.5 | | 21.5 | 9.0 | | | | 0.05 | 0.3 | 0.3 | | | Cb 3.7 | | | | | | | |

Star Guide Préconisation d'outils










| Désignation des groupes de matières | | | | | | |
|---|--|-------------------|--|-------------------------------|--|-----------------------------------|
|  | P  | Aciers non alliés | M  | Aciers inoxydables | K  | Fontes |
| | P  | Aciers alliés | M  | Inox durcis par précipitation | N  | Aluminium et alliages d'aluminium |
| | | | | | S  | Alliages réfractaires |
| | | | | | H  | Matériaux durs |

TABLEAU DES REFERENCES MATIERES

| Groupe de matières | Désignation commerciale | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|---------------------|-------------------------|--------------------|------------------------------|--------------|------------------|--------------|-------------|------------|
| | | | | ALLEMAGNE | | ROYAUME -UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | | AFNOR | AMS |
| Alliage base nickel | Inconel 690 | Nickelvac 690 | | 2.4642 | | | | |
| Alliage base nickel | Inconel 700 | | | | NiCo28Cr15MoAlTi | | NK27CADT | |
| Alliage base nickel | Inconel 702 | | | | | | | 5550 |
| Alliage base nickel | Inconel 706 | Allvac 706 | | | | | | 57-2 |
| Alliage base nickel | Inconel 713 | | | | G-NiCr13Al16MoNb | 3146.3 | NC13AD | 5391 |
| Alliage base nickel | Inconel 718 | Allvac 718 | ALTEMP 718 | 2.4668 | NiCr19Fe19NbMo | HR8 | NC19FeNb | 5383 |
| Alliage base nickel | Inconel 718-OP | Allvac 718-OP | | | | | | |
| Alliage base nickel | Inconel 720 | Allvac 720 | | | | | | |
| Alliage base nickel | Inconel 721 | | | | | | | |
| Alliage base nickel | Inconel 722 | Nickelvac W-722 | | | NiCr16FeTi | | NC16Feti | 5541 |
| Alliage base nickel | Inconel 725 | | | | | | | |
| Alliage base nickel | Inconel 751 | Nickelvac X-751 | | 2.4694 | | | | |
| Alliage base nickel | Inconel X-750 | Nickelvac X-750 | ALTEMP 750 | 2.4669 | NiCr16FeTi | | NC15FeTNb | 5542 |
| Alliage base nickel | Jessop G 81 | | | | NiCr20Co18Ti | | | |
| Alliage base nickel | Jethete M-252 | Allvac M-252 | | | G-NiCr19Co | | | 5551 |
| Alliage base nickel | MAR-M 200 | | | | NiW13Co10Cr9AlTi | | NKW10CATaHf | |
| Alliage base nickel | MAR-M 246 | | | | NiCo10W10Cr9AlTi | | | |
| Alliage base nickel | MAR-M 421 | | | | NiCr16Co10WAlTi | | | |
| Alliage base nickel | MAR-M 432 | | | | NiCo20Cr16WAlTi | | | |
| Alliage base nickel | Monel 400 | Nickelvac 400 | AL 400 | 2.4360 | NiCu30Fe | 3072-76 | NU30 | 4544 |
| Alliage base nickel | Monel K 500 | Nickelvac K-500 | | 2.4375 | NiCu30Al | 3072-76 | | 4676 |
| Alliage base nickel | Monel R 405 | | | | | | | 4674 |
| Alliage base nickel | Nimocast 713 | | | | G-NiCr13Al16MoNb | HC203 | NC13AD | 5391A |
| Alliage base nickel | Nimocast PD 16 | | | | NiFe33Cr17Mo | | | |
| Alliage base nickel | Nimocast PE 10 | | | | | HC202 | NC20N13 | |
| Alliage base nickel | Nimonic 105 | | | 2.4634 | NiCo20Cr15MoAlTi | HR3 | NCKD20ATV | |
| Alliage base nickel | Nimonic 115 | | | 2.4636 | NiCo15Cr15MoAlTi | HR401, 601 | NCVK15ATD | |
| Alliage base nickel | Nimonic 75 | | | 2.4630 | NiCr20Ti | HR5, 203-4 | NC20T | |
| Alliage base nickel | Nimonic 80A | Nickelvac 80 A | | 2.4631 | NiCr20TiAl | HR401, 601 | NC20TA | |
| Alliage base nickel | Nimonic 86 | | | | | | | |
| Alliage base nickel | Nimonic 90 | Nickelvac N-90 | | 2.4632 | NiCr20Co18Ti | HR2,202 | NCK20TA | |
| Alliage base nickel | Nimonic 901 | Nickelvac 901 | | 2.4662 | NiCr15MoTi | | Z8NCDT42 | 5660, 5661 |
| Alliage base nickel | Nimonic 95 | | | | | | | |
| Alliage base nickel | Nimonic C-22 | Nickelvac C-22 | | | | | | |
| Alliage base nickel | Nimonic C-263 | Nickelvac C-263 | ALTEMP 263 | 2.4650 | NiCr20CoMoTi | HR10 | NCK20D | |
| Alliage base nickel | Nimonic C-276 | Nickelvac C-276 | AL 276 | 2.4819 | | | | ASME SB575 |
| Alliage base nickel | Nimonic PE 13 | | | | NiCr22Fe18Mo | HR6,204 | NC22FeD | 5536E |
| Alliage base nickel | Nimonic PE 16 | | | | NiFe33Cr17Mo | HR207 | NW11AC | |
| Alliage base nickel | Nimonic PK 25 | | | | | | NKCD20ATU | 5751A |
| Alliage base nickel | Nimonic PK 31 | | | | | | | |
| Alliage base nickel | Nimonic PK 33 | | | | NiCr20Co16MoTi | 5057 | NC19KDU/V | |
| Alliage base nickel | R-235 | | | | | | | |
| Alliage base nickel | Refractaloy 26 | | | | | | Z6NCDT38 | AISI:690 |
| Alliage base nickel | René 100 | | | | NiCo15Cr10MoAlTi | | | |
| Alliage base nickel | René 125 | | | | | | | |
| Alliage base nickel | René 41 | Rene 41 | | | NiCr19Co11MoTi | NC19KDT | | 5712, 5713 |
| Alliage base nickel | René 63 | | | | | | | |

Star Guide Préconisation d'outils




| Désignation des groupes de matières | | | |
|---|---|---|---|
|  |  |  |  |
|  |  |  |  |

TABLEAU DES REFERENCES MATIERES

| Fe | Co | Cr | Mo | W | Si | Mn | C | Al | Ti | P | S | Autres | Plage des vitesses de coupe Vc m/min. | | | | |
|------|------|-------|------|------|------|------|-------|------|------|---|-------|----------------|---------------------------------------|----|----|-----|-----|
| | | | | | | | | | | | | | 25 | 50 | 75 | 100 | 125 |
| 9.0 | | 29.0 | | | 0.2 | 0.2 | 0.25 | | | | 0.007 | Cu 0.2 | | | | | |
| 0.7 | 28.5 | 15 | 3.7 | | 0.3 | 0.1 | 0.12 | 3.0 | 2.2 | | | | | | | | |
| 0.4 | | 15.6 | | | 0.2 | 0.05 | 0.04 | 3.4 | 0.7 | | | | | | | | |
| | | 16.0 | | | | | 0.03 | | 1.8 | | | Cb 2.9 | | | | | |
| | | 12 | 4.5 | | | | 0.13 | 6 | 0.6 | | | | | | | | |
| 17.2 | | 19.0 | 3.1 | | | | 0.02 | 0.5 | 0.9 | | | Cb 5.2 | | | | | |
| 17.2 | | 19.0 | 3.1 | | | | 0.02 | 0.5 | 0.9 | | | Cb 5.2 | | | | | |
| | 14.7 | 18 | 3 | 1.25 | | | | 2.5 | 5 | | | | | | | | |
| 8.0 | | 16 | | | 0.15 | 2.25 | 0.07 | 0.1 | 3.0 | | | Cu0.2 | | | | | |
| 7.0 | | 15.5 | | | | | 0.04 | 0.7 | 2.4 | | | | | | | | |
| 7.5 | | 21 | 8 | | | | | 0.3 | 1.5 | | | Nb 3.5 | | | | | |
| 7.0 | | 15.5 | | | 0.2 | 0.5 | 0.05 | 1.2 | 2.3 | | 0.005 | Cb 1.1, Cu 0.2 | | | | | |
| 7.0 | | 15.5 | | | | | 0.04 | 0.7 | 2.5 | | | Cb 0.95 | | | | | |
| 0.5 | 16.9 | 20.6 | | | 0.2 | 0.5 | 0.08 | 1.5 | 2.5 | | | | | | | | |
| 2.5 | 10.0 | 19.0 | 9.75 | | | | 0.15 | 1.0 | 2.5 | | | B 0.007 | | | | | |
| | 10.0 | 9.0 | | 12.5 | | | 0.15 | 5.0 | 2.0 | | | Nb1.0 | | | | | |
| | 10.0 | 9.0 | 2.5 | 10.0 | | | 0.15 | 5.5 | 1.5 | | | Ta1.5 | | | | | |
| | 10.0 | 15.5 | 1.7 | 3.5 | | | 0.15 | 4.25 | 1.75 | | | Nb1.75 | | | | | |
| | 20.0 | 15.5 | | 3 | | | 0.15 | 2.5 | 4.3 | | | Nb2.0 | | | | | |
| 1.2 | | | | | 0.25 | | 0.15 | | | | 0.01 | | | | | | |
| 1.0 | | | | | 0.25 | 0.7 | 0.1 | 2.7 | 0.6 | | 0.01 | | | | | | |
| 1.25 | | | | | 0.25 | 1.0 | 0.15 | | | | | Cu31.5 | | | | | |
| | | 13.5 | 4.5 | | | | 0.12 | 6.0 | 0.9 | | | | | | | | |
| 34.0 | | 16.5 | 3.3 | | | | 0.06 | 1.2 | 1.2 | | | | | | | | |
| 3.0 | | 20.0 | 6.0 | 2.5 | | | 0.03 | | | | | | | | | | |
| 0.5 | 20 | 14.75 | 5 | | 0.5 | 0.5 | 0.1 | 4.7 | 1.2 | | | Cu | | | | | |
| | 13.2 | 14.2 | 4 | | | | 0.16 | 5 | 4 | | | Zr | | | | | |
| 4 | | 20 | | | 0.45 | 0.45 | 0.45 | 0.1 | 0.35 | | | Cu+S | | | | | |
| 0.55 | | 19.5 | | | 0.2 | 0.55 | 0.08 | 1.4 | 2.4 | | | Cu+S | | | | | |
| | | 25 | 10 | | | | | | | | | Ce 0.03 | | | | | |
| 0.3 | 18.0 | 19.5 | | | | | 0.065 | 1.4 | 2.4 | | | | | | | | |
| 35.0 | | 12.5 | 6.0 | | | | 0.05 | | 2.8 | | | B 0.015 | | | | | |
| 5.0 | 18.0 | 19.5 | | | 1.0 | 1.0 | 0.1 | 2.0 | 3.5 | | | | | | | | |
| 4.0 | 1.2 | 21.2 | 13.5 | 3.0 | 0.04 | 0.2 | 0.07 | | | | 0.01 | V 0.17 | | | | | |
| | 20.0 | 20.0 | 5.85 | | | | 0.06 | 0.45 | 2.15 | | | | | | | | |
| 5.0 | 0.5 | 15.5 | 16.0 | 3.5 | | | 0.01 | | | | | | | | | | |
| 18.5 | 1.5 | 21.75 | 9 | 0.6 | 0.5 | 0.5 | 0.1 | | | | | | | | | | |
| 1.2 | | 16.5 | 3.5 | | | | 0.05 | 1.2 | 1.2 | | | | | | | | |
| | 19.5 | 19 | 4 | | 0.75 | 0.75 | 0.08 | 2.9 | 2.9 | | | B 0.01 | | | | | |
| | 14 | 20 | 4.5 | | | | | 0.4 | 2.3 | | | Nb5 | | | | | |
| 0.5 | 14 | 18 | 7 | | 0.25 | 0.25 | 0.05 | 2.1 | 2 | | | | | | | | |
| 10.0 | 1.15 | 15.0 | 5.5 | | 0.3 | 0.1 | 0.12 | 20 | 2.5 | | | | | | | | |
| 16.0 | 20.0 | 18.0 | 3.2 | | 1.0 | 0.8 | 0.03 | 0.2 | 2.8 | | | | | | | | |
| | | 15.0 | 10.0 | 3.0 | | | 0.18 | 5.5 | 4.7 | | | V1.0 | | | | | |
| | | 10.0 | 8.9 | 2.0 | 7.0 | | 0.1 | 4.7 | 2.5 | | | Hf1.05, Ta3.0 | | | | | |
| 3.0 | 11.0 | 19.0 | 9.75 | | | | 0.06 | 1.6 | 2.5 | | | B 0.007 | | | | | |
| 3.5 | 15.0 | 14.0 | 6.0 | 3.5 | 0.2 | 0.1 | 0.05 | 3.8 | 2.5 | | | | | | | | |

Star Guide Préconisation d'outils

| Désignation des groupes de matières | | | | | |
|---|--|--|--|--|--|
|  | P  Aciers non alliés | M  Aciers inoxydables | K  Fontes | S  Alliages réfractaires | |
| | P  Aciers alliés | M  Inox durcis par précipitation | N  Aluminium et alliages d'aluminium | H  Matériaux durs | |

TABLEAU DES REFERENCES MATIERES

| Groupe de matières | Désignation commerciale | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|---------------------|-------------------------|--------------------|------------------------------|--------------|------------------|--------------|----------|------------|
| | | | | ALLEMAGNE | | ROYAUME -UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | | AFNOR | AMS |
| Alliage base nickel | René 77 | | | | | | | |
| Alliage base nickel | René 80 | | | | | | | |
| Alliage base nickel | René 95 | | | | | | NC14K8 | |
| Alliage base nickel | TRW VIA | | | | NiTa9Co8W6CrAl | | | |
| Alliage base nickel | Udimet 500 | | | | NiCr18CoMoAlTi | | NCK19DAT | AISI:684 |
| Alliage base nickel | Udimet 520 | Allvac 520 | | | | | | |
| Alliage base nickel | Udimet 630 | | | | NiCr19NbMo | | | |
| Alliage base nickel | Udimet 700 | | | | NiCo15Cr15MoAlTi | | NCKD20AT | AISI:687 |
| Alliage base nickel | Udimet 710 | | | | | | NCK18TDA | |
| Alliage base nickel | Udimet 718 | | | | NiCr19Fe19NbMo | HR8 | NC19FeNb | 5583 |
| Alliage base nickel | Waspaloy | Allvac Waspaloy | | 2.4654 | NiCr20Co14MoTi | | NC20K14 | 5544 |

| Groupe de matières | Désignation commerciale | Désignation Allvac | Désignation Allegheny Ludlum | Pays / Norme | | | | |
|------------------------------|-------------------------|--------------------|------------------------------|--------------|---------------------|-----------------|---------------|-----------------------------|
| | | | | ALLEMAGNE | | ROYAUME -UNI | FRANCE | ETATS-UNIS |
| | | | | W.-Nr. | DIN | | AFNOR | AMS |
| Alliage de titane alpha | Ti-5Al-2.5Sn | Allvac 5-2.5 | | | TiAl5Sn2 | TA 14,17 | T-A5E | ASTM: B 265 |
| Alliage de titane alpha | Ti-7Al-4Mo | | | | TiAl7Mo4 | | | ASTM: B 381 |
| Alliage de titane alpha | Ti-8Al-1Mo-1V | Allvac 8-1-1 | | | TiAl8Mo1V1 | | | 4915, 4933, 4972 |
| Alliage de titane alpha | Ti-6Al-4Zr-2Mo-2Sn | Allvac 6-2-4-2 | | | TiAl6Zr4Mo2Sn2 | | | 4919, 4975, 4976 |
| Alliage de titane alpha beta | Ti-6Al-4V | Allvac 6-4 | | | TiAl6V4 | TA 10-13; TA 28 | T-A6V | 4906, 4920,4928, 4965, 4967 |
| Alliage de titane alpha beta | Ti-6Al-6V-2Sn | Allvac 6-6-2 | | | TiAl6V6Sn2 | | | 4971 |
| Alliage de titane alpha beta | Ti-4Al-4Mo-2Sn-0.5Si | Allvac 4-4-2 | | | TiAl4Mo4Sn2Si0.5 | 5103 | T-A4DE | |
| Alliage de titane alpha beta | Ti-4Al-4Mo-4Sn-0.5Si | | | | TiAl4Mo4Sn4Si0.5 | 5203 | | |
| Alliage de titane alpha beta | Ti-7Al-4Mo | | | | TiAl7Mo4 | | | ASTM: B 381 |
| Alliage de titane alpha beta | Ti-6Al-5Zr-0.5Mo-0.25Si | | | | TiAl6Zr5Mo0.5Si0.25 | | T-AGZ-50 | |
| Alliage de titane alpha beta | Ti-6Al-5Zr-4Mo-Cu-0.2Si | | | | TiAl6Zr5Mo4CuSi0.2 | M201 | | |
| Alliage de titane alpha beta | Allvac 3-2.5 | Allvac 3-2.5 | | | | | | 4943, 4944 |
| Alliage de titane alpha beta | Allvac 6-4ELI | Allvac 6-4ELI | | | | | | 4907, 4930, 4931 |
| Alliage de titane alpha beta | Allvac 6-2-4-6 | Allvac 6-2-4-6 | | | | | | 4981 |
| Alliage de titane alpha beta | Allvac Ti-17 | Allvac Ti-17 | | | | | | 4995 |
| Alliage de titane beta | Ti-13V-11Cr-3Al | Allvac 13-11-3 | | | TiV13Cr11Al3 | | | 4917 |
| Alliage de titane beta | Ti-8Mo-8V-2Fe-3Al | | | | | | | |
| Alliage de titane beta | Ti-3Al-8V-6Cr-4Mo-4Zr | Allvac 38-644 | | | | | | |
| Alliage de titane beta | Ti-11.5Mo-6Zr-4.5Sn | | | | | | | |
| Titane pur | Ti 99.5 | Allvac 70, Ti CP-4 | | | Ti 99.5 | TA 6 | AIR: 9182 T60 | ASTM: B381F4 |
| Titane pur | Ti 99.6 | Allvac 55, Ti CP-3 | | | Ti 99.6 | | AIR: 9182 T50 | ASTM: B381F3 |
| Titane pur | Ti 99.7 | Allvac 40, Ti CP-2 | | | Ti 99.7a | TA 2-5 | AIR: 9182 T40 | ASTM: B381F2 |
| Titane pur | Ti 99.8 | Allvac 30, Ti CP-1 | | | Ti 99.8 | TA 1 | AIR: 9182 T35 | ASTM: B381F1 |
| Fonte ductile bainitique | 269-321 | | | | EN-GJS-800-8 | | | 125/80/10 (grade 1) |
| Fonte ductile bainitique | 269-321 | | | | EN-JS1100 | | | 850/550/10 (grade 1) |
| Fonte ductile bainitique | 302-363 | | | | EN-GJS-1000-5 | | | 150/100/7 (grade 2) |
| Fonte ductile bainitique | 302-363 | | | | EN-JS1110 | | | 1050/700/7 (grade 2) |
| Fonte ductile bainitique | 341-444 | | | | EN-GJS-1200-2 | | | 175/125/4 (grade 3) |
| Fonte ductile bainitique | 341-444 | | | | EN-JS1120 | | | 1200/850/4 (grade 4) |
| Fonte ductile bainitique | 444-555 | | | | EN-GJS-1400-1 | | | 230/185/--- (grade 5) |
| Fonte ductile bainitique | 444-555 | | | | EN-JS-1130 | | | 1600/1300/-- (grade 5) |

Star Guide Préconisation d'outils


| Désignation des groupes de matières | | | |
|---|---|---|---|
|  |  |  |  |
|  |  |  |  |

TABLEAU DES REFERENCES MATIERES










| Fe | Co | Cr | Mo | W | Si | Mn | C | Al | Ti | P | S | Autres | Plage des vitesses de coupe Vc m/min. | | | | | | |
|------|------|------|-----|-----|-----|-----|------|------|-----|---|---|--------|---------------------------------------|----|----|-----|-----|--|--|
| | | | | | | | | | | | | | 25 | 50 | 75 | 100 | 125 | | |
| 0.4 | 15.0 | 15.0 | 4.2 | | 0.1 | 0.1 | 0.07 | 4.3 | 3.3 | | | | | | | | | | |
| | 9.5 | 14.0 | 4.0 | 4.0 | | | 0.17 | 3.0 | 5.0 | | | | | | | | | | |
| | 8.0 | 14.0 | 3.5 | 3.5 | | | 0.15 | 3.5 | 2.5 | | | | Nb3.5 | | | | | | |
| | 7.5 | 6.0 | 2.0 | 5.8 | | | 0.13 | 5.4 | 1.0 | | | | Nb0.5, Ta9.0 | | | | | | |
| | 19.0 | | 4.0 | | 0.1 | 0.1 | 0.07 | 3.0 | 3.0 | | | | | | | | | | |
| | 12 | 19 | 6 | 1 | | | | 2 | 3 | | | | | | | | | | |
| 18.0 | 18.0 | | 3.0 | | | | 0.03 | 0.5 | 1.0 | | | | Nb6.5 | | | | | | |
| | 16.5 | 15.0 | 5.0 | | | | 0.07 | 4.4 | 3.4 | | | | | | | | | | |
| | 15.0 | 18.0 | 3.0 | 1.5 | | | 0.07 | 2.5 | 5.0 | | | | | | | | | | |
| 18.0 | | 18.0 | 3.0 | | | | 0.05 | 0.6 | 1.0 | | | | Nb+Ta5.2 | | | | | | |
| | 13.0 | 19.5 | 4.3 | | | | 0.05 | 1.40 | 3.0 | | | | Zr .07 | | | | | | |

| Al | Sn | Mo | V | Zr | Si | | | | | | | Autres | Plage des vitesses de coupe Vc m/min. | | | | | | |
|-----|-----|------|------|-----|------|--|--|--|--|--|--|--------|---------------------------------------|----|----|-----|-----|--|--|
| | | | | | | | | | | | | | 25 | 50 | 75 | 100 | 125 | | |
| 5.0 | 2.5 | | | | | | | | | | | | | | | | | | |
| 7.0 | | 4.0 | | | | | | | | | | | | | | | | | |
| 8.0 | | 1.0 | 1.0 | | | | | | | | | | | | | | | | |
| 6.0 | 2.0 | 2.0 | | 4.0 | | | | | | | | | | | | | | | |
| 6.0 | | | 4.0 | | | | | | | | | | | | | | | | |
| 5.5 | 2.0 | | 5.5 | | | | | | | | | | | | | | | | |
| 4.0 | 2.0 | 4.0 | | | 0.55 | | | | | | | | | | | | | | |
| 4.0 | 4.0 | 4.0 | | | 0.5 | | | | | | | | | | | | | | |
| 7.0 | | 4.0 | | | | | | | | | | | Fe 0.3 | | | | | | |
| 6.0 | | 0.5 | | 5.0 | 0.25 | | | | | | | | | | | | | | |
| 6.0 | | 4.0 | | 5.0 | 0.2 | | | | | | | | Cu 1.0 | | | | | | |
| 3.0 | | | 2.5 | | | | | | | | | | Fe 0.13 | | | | | | |
| 6.0 | | | | | | | | | | | | | Fe 0.2 | | | | | | |
| 6.0 | 2.0 | 6.0 | | 4.0 | | | | | | | | | Fe 0.10 | | | | | | |
| 5.0 | 2.0 | 4.0 | | 2.0 | | | | | | | | | Cr 4.0 | | | | | | |
| 3.0 | | | 13.0 | | | | | | | | | | Cr 11.0 | | | | | | |
| 3.0 | | 8.0 | 8.0 | | | | | | | | | | | | | | | | |
| 3.0 | | 4.0 | 8.0 | 4.0 | | | | | | | | | Cr 6.0 | | | | | | |
| | 4.5 | 11.5 | | 6.0 | | | | | | | | | | | | | | | |

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Star Guide Préconisation d'outils

| Désignation des groupes de matières | | | | | |
|---|--|--|--|--|--|
|  | P  Aciers non alliés | M  Aciers inoxydables | K  Fontes | S  Alliages réfractaires | |
| | P  Aciers alliés | M  Inox durcis par précipitation | N  Aluminium et alliages d'aluminium | H  Matériaux durs | |