

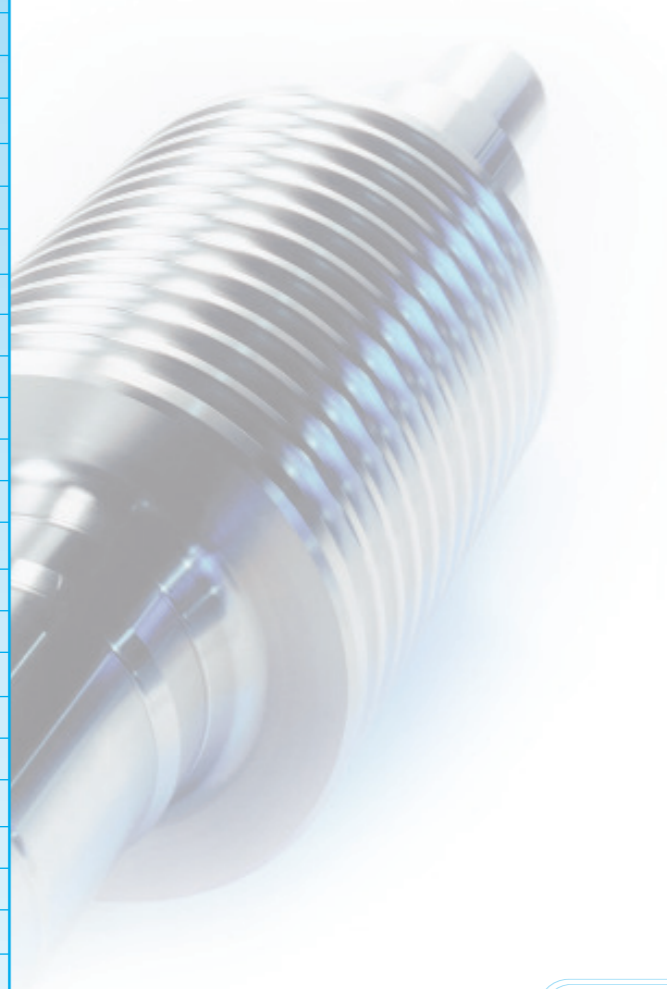
Umrechnungstabelle Oberflächenhärte

| L _D Leeb | HV Vickers | °SHC Shore C | HB Brinell | HRC Rockwell |
|------------------------|---------------|-----------------|---------------|-----------------|
| 656 | 407 | 58 | 397 | 41,5 |
| 662 | 416 | 59 | 403 | 42 |
| 669 | 425 | 60 | 410 | 43 |
| 675 | 434 | 61 | 417 | 43,5 |
| 682 | 444 | 62 | 422 | 44 |
| 688 | 453 | 63 | 430 | 45 |
| 694 | 462 | 64 | 440 | 45,5 |
| 699 | 472 | 65 | 446 | 46 |
| 706 | 482 | 66 | 456 | 47 |
| 712 | 492 | 67 | 463 | 48 |
| 718 | 502 | 68 | 472 | 49 |
| 724 | 512 | 69 | 481 | 49,5 |
| 730 | 523 | 70 | 492 | 50 |
| 735 | 533 | 71 | 503 | 51 |
| 740 | 544 | 72 | 513 | 51,5 |
| 746 | 556 | 73 | 524 | 52 |
| 752 | 568 | 74 | 534 | 53 |
| 758 | 580 | 75 | 545 | 53,5 |
| 764 | 592 | 76 | 557 | 54 |
| 769 | 602 | 77 | 569 | 55 |
| 774 | 614 | 78 | 579 | 55,5 |
| 779 | 625 | 79 | 589 | 56 |
| 783 | 636 | 80 | 599 | 56,5 |
| 788 | 646 | 81 | 611 | 57 |
| 792 | 658 | 82 | 622 | 58 |
| 796 | 670 | 83 | 632 | 58,5 |
| 801 | 682 | 84 | 643 | 59 |
| 804 | 692 | 85 | | 59,5 |
| 808 | 704 | 86 | | 60 |
| 812 | 716 | 87 | | 60,5 |
| 816 | 730 | 88 | | 61 |
| 821 | 744 | 89 | | 62 |
| 826 | 760 | 90 | | 62,5 |
| 830 | 770 | 91 | | 63 |
| 834 | 784 | 92 | | 63,5 |
| 839 | 800 | 93 | | 64 |

Leeb L_D, Messung mittels Equo Tip

Messungen in HV / HB / HRC gemäß
DIN 50150:
HV (DIN 50133)
HB (DIN 50351)
HRC (DIN 50103)

Verhältnis °SHC zu HV bzw. HRC
gemäß
MPA Dortmund (DIN 50150)



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Ein Unternehmen der IRLE GRUPPE

Walzenwerkstoff-Empfehlungen für Profilwalzwerke der Stahl-Industrie



WB-Stahl-WE-PS-003-De-10-06-Erst_Pa_Gem_v5



| | Block-Brammenstraßen | Halbzeugstraßen | | | | Schwere Profilstraßen | | | Universalstraßen für schwere Träger und Profile | | Mittleisenstraßen | | | Feineisenstraßen | | | Draht- und Stabstahlstraßen | | | Nahtlose Rohrstraßen | | | | | | | | | | | | | |
|--|-------------------------|----------------------|-----------------|--------------|------------------------------------|------------------------------------|--------------------------------|---------------------------------------|---|------------------|-----------------------------|-----------------------------|-------------------------------|-------------------------------------|-------------------------------------|------------------------------------|-----------------------------|------------------|------------------------------------|----------------------------|--------------|------------------|------------|---------------|------------|------------------|------------|----------------------|-----------------|--------------------------------|-----------------|-------------|--|
| | | Kontistriaßen | | | Duo-Reversiergerüste / Triogerüste | Duo-Reversiergerüste / Triogerüste | Horizontalwalzen ¹⁾ | Vertikalwalzen / Stauchwalzen | Vorgerüste | Zwischengerüste | Fertigerüste ²⁾ | Vorgerüste | Zwischengerüste ²⁾ | Fertigerüste ²⁾ | Vorgerüste | Zwischengerüste ²⁾ | Fertigerüste ²⁾ | Vorgerüste | Zwischengerüste ²⁾ | Fertigerüste ²⁾ | Schrägwalzen | Diescherscheiben | PSW-Rollen | Stopfenwalzen | Lösewalzen | Kontiwalzen | Masswalzen | Streckreduzierrollen | Richtwalzen | | | | |
| | | Vorgerüste | Zwischengerüste | Fertigerüste | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stahlguss / Stahlguss grafitisiert | ST 0-280 STG 0-280 | STG 20-360 | STG 20-400 | STG 30-400 | STG 10-320 | ST 0-280 STG 0-280 | ST 0-320 ST 10-320 | ST 10-320 | ST 20-320 | STG 20-320 | ST 10-280 STG 10-280 | ST 10-320 STG 10-320 | STG 20-360 STG 30-360 | STG 20-360 | STG 30-400 STG 30-400 | STG 30-360 | | | | | | | | STG 20-360 | | | | | | | | | |
| | 260-300 HV | 340-380 HV | 380-420 HV | 380-420 HV | 300-340 HV | 260-300 HV | 300-340 HV | 300-340 HV | 300-340 HV | 300-340 HV | 260-300 HV | 300-340 HV | 340-380 HV | 340-380 HV | 340-380 HV | 340-380 HV | | | | | | | | 340-380 HV | | | | | | | | | |
| | ST 10-320 STG 10-320 | | | | STG 10-360 | ST 0-320 STG 0-320 | ST 10-360 STG 10-360 | ST 10-360 STG 10-360 STG 20-360 | STG 20-360 | STG 20-360 | ST 10-320 STG 10-320 | STG 20-360 | | | | | | | | | | | | | | | | | | | | | |
| | 300-340 HV | | | | 340-380 HV | 300-340 HV | 340-380 HV | 340-380 HV | 340-380 HV | 340-380 HV | 300-340 HV | 340-380 HV | | | | | | | | | | | | | | | | | | | | | |
| STG 20-320 | | | | STG 20-360 | ST 10-320 STG 10-320 | ST 20-360 STG 20-360 | ST 30-400 STG 30-400 | STG 20-400 STG 30-400 | STG 20-400 STG 30-400 | STG 20-360 | | | | | | | | | | | | | | | | | | | | | | | |
| 300-340 HV | | | | 340-380 HV | 300-340 HV | 340-380 HV | 380-420 HV | 380-420 HV | 380-420 HV | 340-380 HV | | | | | | | | | | | | | | | | | | | | | | | |
| Chromstahl / -guss Chromstahlplus/ Chromguss plus | | | | CR 15-440 | | | | CR 15-440 | | | CR 15-480 CR 15 plus-480 | CR 25-520 CR 25 plus-520 | | CR 15-480-C-S CR 15 plus-480-C-S | CR 25-520-C-S CR 25 plus-520-C-S | | | | | | | | | | | CR 15-600 | | | | | CR 25-600-C-S | | |
| | | | | 420-460 HV | | | | 420-460 HV | | | 460-500 HV | 500-540 HV | | 460-500 HV | 500-540 HV | | | | | | | | | | | 580-620 HV | | | | 580-620 HV | | | |
| | | | | | | | | CR 25-480 | | | | | | | | | | | | | | | | | | CR 25-560 | | | | CR 25-640-C-S CR 25-640-C-S | | | |
| | | | | | | | | 460-500 HV | | | | | | | | | | | | | | | | | 540-580 HV | | | | 620-660 HV | | | | |
| Indefinite / Indefinite plus | | | | | | | | | | | I-440 | I-440 | I-360 | I-440 | I-480-C-S(G) | | I-520-C-S | I-600-C-S(G) | | I-440 | | | | | | | | | | | I-560-C-S(G) | | |
| | | | | | | | | | | | 420-460 HV | 420-460 HV | 340-380 HV | 420-460 HV | 460-500 HV | | 500-540 HV | 580-620 HV | | 420-460 HV | | | | | | | | | | 540-580 HV | | | |
| | | | | | | | | | | | | I-480 | | | I-480-C-S | I-520-C-S(G) | | I-560-C-S | I-640-C-S(G) I plus-640-C-S(G) | | | | | | | | | | | | | | |
| | | | | | | | | | | | | 460-500 HV | | | 460-500 HV | 500-540 HV | | 540-580 HV | 620-660 HV | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | I plus-560-C-S(G) | | I-600-C-S I plus-600-C-S | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 540-580 HV | | 580-620 HV | | | | | | | | | | | | | | | | |
| Sonderstahl / Sonderstahl modifiziert (Schnellarbeitsstahl) | | | | | | | | SST-560 | | | | | | | SST-560-C-S | SST-560-C-S | | SST-560-C-S | SST-600-C-S | | | | | | | | | | | | | SST-720-C-S | |
| | | | | | | | | 540-580 HV | | | | | | | 540-580 HV | 540-580 HV | | 540-580 HV | 580-620 HV | | | | | | | | | | | | 700-740 HV | | |
| | | | | | | | | | | | | | | | SST-600-C-S | | | SST-600-C-S | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 580-620 HV | | | 580-620 HV | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | SST-640-C-S | | | SST-640-C-S | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | 620-660 HV | | | 620-660 HV | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | SST-680-C-S | | | SST-680-C-S | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 660-700 HV | | | 660-700 HV | | | | | | | | | | | | | | | |
| Sphäroguss SP, SA, SP/A-H | SP/A-280 H | SP-400 SP/A-400 H | SP-400 | SP-440 | SP-360 SP/A-360 H | SP/A-320 H | | SP-400 | SP-360 SA-360 | SP-400 SA-400 | SP-360 | SP-400 | SP-400 SA-400 | SP-360 SP/A-360 H | SP-400 | SP-480 SA-480 | SP-360 SP/A-360 H | SP-440 | SA-560-C-S ³⁾ | SP-360 | SP-360 | SP-480 | SP-440 | SP-400 | SP-440 | SP-440 SA-440 | SP-480 | SP-480 | SP-480 | SP-480 | SP-480 | | |
| | 260-300 HV | 380-420 HV | 380-420 HV | 420-460 HV | 340-380 HV | 300-340 HV | | 380-420 HV | 340-380 HV | 380-420 HV | 340-380 HV | 380-420 HV | 380-420 HV | 340-380 HV | 380-420 HV | 460-500 HV | 340-380 HV | 420-460 HV | 540-580 HV | 340-380 HV | 340-380 HV | 460-500 HV | 420-460 HV | 380-420 HV | 420-460 HV | 420-460 HV | 420-460 HV | 460-500 HV | 460-500 HV | 460-500 HV | | | |
| | SP/A-320 H | | | | SP-400 | | | | SP-400 SA-400 | SP-440 SA-440 | SP-400 | SP-440 | SP-440 SA-440 | SP-400 SP/A-400 H | SP-440 | SP-520 SA-520 | SP-400 SP/A-400 H | SP-480 SA-480 | SA-600-C-S ³⁾ | SP-400 | SP-400 | SA-520 | | SP-480-C-S | SA-480 | SP-480 SA-480 | SP-520 | | | | | | |
| | 300-340 HV | | | | 380-420 HV | | | | 380-420 HV | 420-460 HV | 380-420 HV | 420-460 HV | 420-460 HV | 380-420 HV | 420-460 HV | 500-540 HV | 380-420 HV | 460-500 HV | 580-620 HV | 380-420 HV | 380-420 HV | 500-540 HV | | 460-500 HV | 460-500 HV | 460-500 HV | 500-540 HV | | | | | | |
| | | | | SP-440 | | | | SP-440 SA-440 | | | | | SP-480 SA-480 | SP-480 | | | | | | | SP-440 | | | | | | | | SP-560-C-S | | | | |
| | | | | 420-460 HV | | | | 420-460 HV | | | | | 460-500 HV | 460-500 HV | | | | | | | 420-460 HV | | | | | | | | 540-580 HV | | | | |
| Hartguss | | | | | | | | | | | | | | | K 30-480-C-S | K 30-560-C-S(G) K 40-560-C-S(G) | | K 30-520-C-S | K 30-600-C-S(G) K 40-600-C-S(G) | | | | | | | | | | | K 30-520-C-S(G) | K 40-560-C-S(G) | | |
| | | | | | | | | | | | | | | | 460-500 HV | 540-580 HV | | 500-540 HV | 580-620 HV | | | | | | | | | | 500-540 HV | 540-580 HV | | | |
| | | | | | | | | | | | | | | | | K 30-600-C-S(G) K 40-600-C-S(G) | | | K 30-640-C-S(G) K 40-640-C-S(G) | | | | | | | | | | K 40-560-C-S(G) | K 40-600-C-S(G) | | | |
| | | | | | | | | | | | | | | | 580-620 HV | | | 620-660 HV | | | | | | | | | | 540-580 HV | 580-620 HV | | | | |

1) Monoblock- oder zweiteilige Walzen (Ringe auf Achsen)

2) Walzen für Zwischen- und Fertigerüste werden je nach Ballenhärtigkeit und Kalbertiefe als Verbundwalzen mit Grau- oder Sphärogusskern hergestellt.

3) Für Betonrippenstahl