

NEW

LIEFERPROGRAMM DELIVERY PROGRAM PROGRAMME DE VENTE PROGRAMMA DI VENDITA

Schnitt- & Stanztechnik
Cutting & Punching industry
Industrie de Découpage-Emboutissage & Frappe
Tranciatura & Stampaggio

EXTRAMET
WE LIVE FOR CHALLENGES 

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08/2018

UNSERE HARTMETALLSORTEN | OUR TUNGSTEN CARBIDE GRADES | NOS NUANCES DE CARBURE

	Feinstkorn submicron grain micrograin			Feinkorn fine grain grain fin		Ultrafeinkorn ultrafine grain grain ultrafin		Mittelkorn medium grain grain moyen		Feinstkorn submicron grain micrograin
WC	EMT100	EMT210	EMT212	EMT409	EMT412	EMT609	EMT612	EMT812	EMT815	EMT909
WC	93%	89%	87%	90%	87%	89.5%	86.5%	86.8%	85%	90.5%
Co	6%	10%	12%	9%	12%	9%	12%	12%	15%	—
Ni	—	—	—	—	—	—	—	—	—	8.5%
Zusatzkarbide Other carbides <i>Autres carbures</i>	1%	1%	1%	1%	1%	1.5%	1.5%	1.2%	0%	1%
Korngrösse Average grain size <i>Dimension des grains</i>	~0.8	~0.8	~0.8	~1.2	~1.2	~0.5	~0.5	~2.5	~2.5	<1.0
Dichte ISO 3369 Density <i>Densité</i>	14.80 ±0.1	14.45 ±0.1	14.20 ±0.1	14.50 ±0.1	14.25 ±0.1	14.40 ±0.1	14.10 ±0.1	14.15 ±0.1	14.10 ±0.1	14.50 ±0.1
Härte ISO3878 Hardness <i>Dureté</i>	HV 30 1'800 ±60	1'600 ±60	1'550 ±60	1'550 ±60	1'440 ±60	1'930 ±60	1'720 ±60	1'320 ±60	1'120 ±60	1'600 ±60
Biegefestigkeit Transverse rupture strength <i>Résistance à la flexion</i>	>3'800	>4'300	>4'300	>3'500	>4'000	>4'000	>4'200	>3'200	>3'200	>3'600
Bruchzähigkeit K_{1c} Fracture toughness <i>Résistance à la rupture</i>	MPa*m ^{1/2} 9.4	10.0	11.5	10.5	12.3	7.7	7.8	12.5	14.0	9.5

K_{1c} nach Palmquist

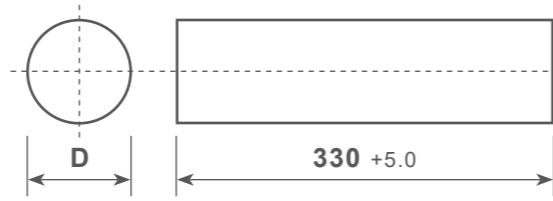
Die Daten in dieser Tabelle sind typische Materialkennwerte. Änderungen der Daten im Rahmen des technischen Fortschritts oder durch betrieblich bedingte Weiterentwicklung behalten wir uns vor. K_{1c}: Die gemessenen kritischen Spannungserstarrfaktoren (K_{1c}) sind in hohen Masse von der Probengeometrie und Probenpräparation abhängig. Ein direkter Vergleich mit Werten, die mit einer anderen Verfahrensweise ermittelt wurden, ist daher nicht zulässig.

The data in this table are typical material parameters. We reserve the right to modify the data due to technical progress or due to further development within our company. K_{1c}: The measured critical tension intensity factors (K_{1c}) depend to a high degree on the sample geometry and sample preparation. A direct comparison with parameters which have been determined by means of a different method is therefore not admissible.

Les données figurant dans ce tableau représentent les paramètres spécifiques matériels. Nous nous réservons le droit de modifier ces données en fonction des progrès technologiques ou de nos futurs développements. K_{1c}: Les facteurs critiques critiques de contraintes (K_{1c}) dépendent fortement de la géométrie et de la préparation de l'échantillon. Une comparaison directe avec des valeurs obtenues par une autre méthode n'est donc pas possible.

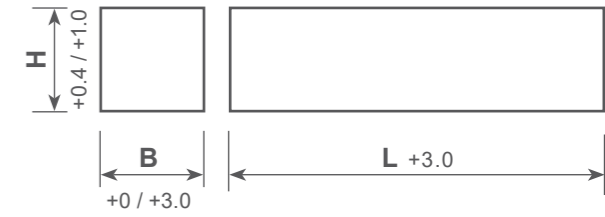
Rundstäbe | voll | sinterroh

Round bars | solid | sintered
 Barreaux ronds | pleins | bruts
 Cilindretti | integrali | sinterizzati



Erodierblöcke | sinterroh | mit Schleifzugabe

Carbide blocks for wire erosion | sintered | with grinding allowance
 Blocs pour l'électroérosion par fil | bruts | avec surépaisseurs
 Blocchi per elettroerosione | sinterizzati | con sovrametallo



D	Tol.	EMT								Artikel Nr. Item No Nr. Réf.
		100	210	212	409	412	609	612	812	
1.25	-0.05 / +0.15	●	●				○	●		010020xxx
1.60	-0.05 / +0.15	○	●							010035xxx
1.80	-0.05 / +0.15	●	●				●	●		010040xxx
2.25	-0.05 / +0.15	●	●				●	●		010050xxx
2.75	-0.05 / +0.15	●	●							010060xxx
3.25	-0.05 / +0.15	●	●		●	●	●	●	●	010080xxx
3.45	-0.05 / +0.15	●	●		●	●	●	●		010085xxx
3.75	-0.05 / +0.15	●	●							010090xxx
4.25	-0.05 / +0.15	●	●		●	●	●	●	●	010100xxx
4.75	-0.05 / +0.15	●	●							010110xxx
5.25	-0.05 / +0.15	●	●		○	●	●	●		010125xxx
5.80	-0.05 / +0.15	●	●							010140xxx
6.30	-0.05 / +0.20	●	●	●	●	●	●	●	●	010150xxx
6.70	-0.05 / +0.20	●	●		○	●	●	●		010160xxx
7.30	-0.05 / +0.20	●	●							010180xxx
8.30	-0.05 / +0.20	●	●	●	●	●	●	●	●	010200xxx
8.80	-0.05 / +0.20	●	●							010210xxx
9.30	-0.05 / +0.20	●	●					●		010230xxx
9.80	-0.05 / +0.20	●	●		○	●	○	●		010240xxx
10.30	-0.05 / +0.20	●	●	●	●	●	●	●	●	010250xxx
10.80	-0.05 / +0.25	●	●							010260xxx
11.35	-0.05 / +0.25	●	●							010280xxx
12.30	-0.05 / +0.25	●	●	●	●	●	●	●	●	010300xxx
13.00	-0.05 / +0.25	●	●		○	●	●	●		010315xxx
13.30	-0.05 / +0.25	●	●							010320xxx
14.30	-0.05 / +0.25	●	●		●	●	●	●	●	010350xxx
14.80	-0.05 / +0.25	●	●							010360xxx
15.30	-0.05 / +0.30	●	●							010380xxx
16.30	-0.05 / +0.30	●	●	●	●	●	●	●	●	010400xxx
16.80	-0.05 / +0.30	○	○							010410xxx
17.30	-0.05 / +0.30	○	○							010430xxx
18.30	-0.05 / +0.30	●	●		●	●	●	●	●	010450xxx
19.30	-0.05 / +0.30	○	●			○		○		010480xxx
20.30	-0.05 / +0.30	●	●	●	●	●	●	●	●	010500xxx
21.30	-0.05 / +0.40	○	●							010520xxx
22.30	-0.05 / +0.40	○	●					●		010550xxx
23.30	-0.05 / +0.40	●	●							010570xxx
24.30	-0.05 / +0.40	○	●							010600xxx
25.30	-0.05 / +0.40	●	●		○	○	●	●		010630xxx
25.80	-0.05 / +0.40	○	●							010640xxx

● Standard
 ○ auf Kundenwunsch
 andere Abmessungen auf Anfrage

standard
 upon customer request
 other dimensions on demand

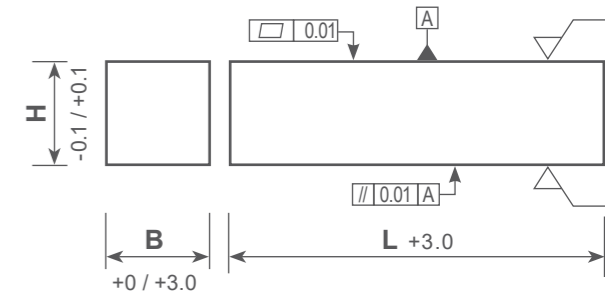
standard
 sur demande du client
 autres dimensions sur demande

standard
 su richiesta del cliente
 altre dimensioni su richiesta

H	B	L	EMT				Artikel Nr. Item No Nr. Réf.
			210	409	812	815	
3.5	100	100	●	●	○	○	086035100100xxx
4.5	100	100	●	●	○	○	086045100100xxx
4.5	100	200	●	●	○	○	086045100200xxx
8.5	100	200	●	●	○	○	086085100200xxx
10.5	100	200	●	●	●	○	086105100200xxx
12.5	100	100	●	●	●	○	086125100100xxx
15.5	100	100	●	●	●	○	086155100100xxx
15.5	100	200	●	●	●	○	086155100200xxx
20.5	100	150	●	●	●	○	086205100150xxx
22.5	100	100	●	●	●	○	086225100100xxx
25.5	100	200	●	●	●	○	086255100200xxx

Erodierblöcke | Stärke (H) vorgeschliffen

Carbide blocks for wire erosion | thickness (H) pre-ground
 Blocs pour l'électroérosion par fil | épaisseur (H) pré-rectifiée
 Blocchi per elettroerosione | spessore (H) pre-rettificato



H	B	L	EMT				Artikel Nr. Item No Nr. Réf.
			210	409	812	815	
3.5	100	100	○	○	○	○	286035100100xxx
4.5	100	100	○	○	○	○	286045100100xxx
4.5	100	200	○	○	○	○	286045100200xxx
8.5	100	200	○	○	○	○	286085100200xxx
10.5	100	200	○	○	○	○	286105100200xxx
12.5	100	100	○	○	○	○	286125100100xxx
15.5	100	100	○	○	○	○	286155100100xxx
15.5	100	200	○	○	○	○	286155100200xxx
20.5	100	150	○	○	○	○	286205100150xxx
22.5	100	100	○	○	○	○	286225100100xxx
25.5	100	200	○	○	○	○	286255100200xxx

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