
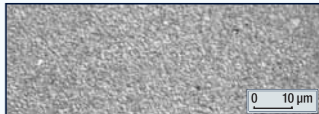
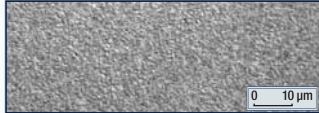
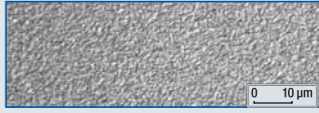
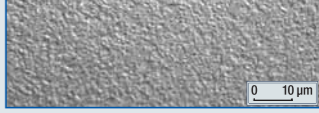
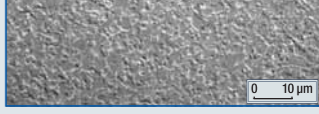
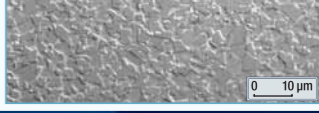

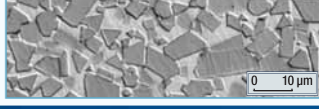


EN TIGRA carbide grades – Technical Data
 DE TIGRA Hartmetallsorten – Technische Daten
 FR Nuances carbure TIGRA – Caractéristiques techniques
 IT I tipi di metallo duro TIGRA – Dati tecnici
 ES Calidades de metal duro TIGRA – Datos técnicos

EN	TIGRA grade	Binder Binder Liant Legante Composicion	Hardness		Bending strength		Toughness
			HV 10	HRA	N/mm ²	psi	
T02SMG	ISO: K01 USA: C4 +++	2.5	2350	95.0 - 95.3	2000	290.000	5.7
T03SMG	ISO: K01 USA: C4 ++	3.5	2100	94.6	2600	377.000	7.5
T03MG-CR	ISO: K01 USA: C4 ++	3.0	2050	94.5	2500	363.000	7.8
T03F-CR	ISO: K01 USA: C4 +	3.0	1950	94.1	2300	334.000	8.0
T04MG-CR	ISO: K01 USA: C4 +	4.3	1900	93.8	2350	341.000	8.6
T04F-CR	ISO: K05 USA: C4	4.5	1800	93.3	2350	341.000	9.0
T05UMG	ISO: K01-K10 USA: C3 ++	5.0	2050	94.5	2450	355.000	7.8
T06MG	ISO: K01-K20 USA: C3 ++	6.0	1800	93.3	2700	392.000	8.4
T06F-CR	ISO: K10 USA: C3	6.0	1740	92.9	2350	341.000	8.9
T07MF-CR	ISO: K20-K30 USA: C2-C3	7.5	1580	91.7	2600	377.000	10.1
T07MF-W	ISO: K20-K30 USA: C2-C3	7.5	1540	91.5	2550	370.000	10.2
T10MG	ISO: K10-K40 USA: C3 +	10.0	1650	92.3	3700	537.000	10.0
T10MG-W	ISO: K10-K40 USA: C3 +	10.0	1600	92.0	3600	522.000	9.8
T12SMG	USA: C1 ++	12.0	1700	92.7	4000	580.000	9.5
T12M-CR	ISO: >K40 USA: C1	12.0	1200	88.3	2700	392.000	13.9
T15C	ISO: >K40 USA: Nail Cut	15.0	890	84.5	3000	435.000	> 20
TL15*	ISO: K10-K40 USA: C3 +	13.5	1450	90.8	3800	551.000	10.8
TL20*	ISO: K10-K40 USA: C2 +	20.0	1230	88.6	3700	537.000	> 20

CR = Co + Ni + Cr = corrosion resistant - korrosionsbeständig - anti-corrosif - inossidabile - anticorrosivo
 * Special binder - Spezialbinder - Liant spécial - Legante speciale - Composición especial

EN TIGRA carbide grades – Grain sizes and binder content
 DE TIGRA Hartmetallsorten – Korngrößen und Bindergehalt
 FR Nuances carbure TIGRA – Grosseur du grain et contingent de liant
 IT I tipi di metallo duro TIGRA – Grossezza del grano e quota di legante
 ES Calidades de metal duro TIGRA – Tamaño del grano y cuota de la composición

EN	Shortform Abkürzung Abréviation Abbreviazione Abreviatura	Explanation Erklärung Explication Spiegazione Explicación	Grain size Korngröße Grosseur du grain Grossezza del grano Tamaño del grano	Micrograph
NG	Nano Grain	0.2		
UMG	Ultra Micro Grain	0.2 - 0.5		
SMG	Sub Micro Grain	0.5 - 0.7		
MG	Micro Grain	0.7 - 1.0		
F	Fine Grain	1.0 - 1.4		
MF	Medium Fine Grain	1.4 - 2.5		
M	Medium Grain	2.5 - 4.0		
C	Coarse Grain	4.0 - 10.0		
EC	Extra Coarse	> 10		

EN Detailed application recommendations can be found in the individual chapters.
 DE Detaillierte Anwendungsempfehlungen finden Sie in den einzelnen Kapiteln.
 FR Pour les recommandations d'application détaillées, veuillez voir aux chapitres suivants.
 IT Suggestimenti di impiego dettagliati si trovano nei singoli capitoli.
 ES Recomendaciones de aplicación detalladas, se encuentran en los capítulos individuales.