



EN TIGRALLOY products  
DE TIGRALLOY Produkte  
FR Produits TIGRALLOY  
IT Prodotti TIGRALLOY  
ES Productos TIGRALLOY

## EN TECHNICAL DATA AND APPLICATION RECOMMENDATIONS

(for more information please see our TIGRALLOY brochure and our technical guidebook "Carbide for cutting tools")

TIGRALLOY, an alloy which mainly consists of cobalt, chromium and tungsten, takes a special position within the cutting materials being neither tungsten carbide nor HSS.

Even though its hardness is rather low, TIGRALLOY can achieve multiple lifetimes of tungsten carbide in many applications because its wear pattern is completely different. In addition, TIGRALLOY is extremely corrosion resistant, tough and heat resistant up to around 800°C / 1500°F. The high bending strength and material composition allow steep angles and very sharp cutting edges which reduces cutting pressure and can achieve excellent surface qualities. TIGRALLOY is made by powder metallurgy and thus, compared to similar, cast materials 100% void-free.

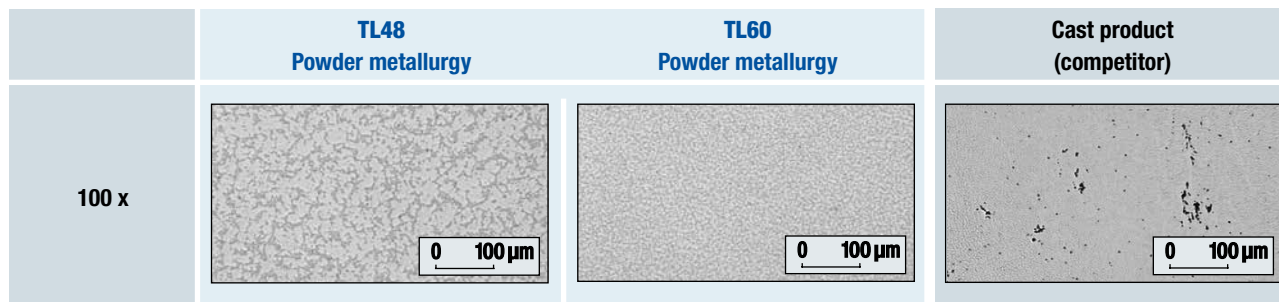


Fig. 1: Homogeneous, void-free TIGRALLOY made by powder metallurgy compared to a similarly alloyed but cast product.

### 2 grades are offered:

**TL48** (hardness 48 HRC), especially as saw tips for processing green lumber. Here, the high toughness is used to make TL48 the ideal cutting material for circular, band- and gangsaws for the saw mill industry. Available in shapes of triangles, rectangles and typical saw tip shapes.

**TL60** (hardness 60 HRC) for indexable inserts, blanks for profiling, planer knives, back corrugated knives and STBs for brazed tools: perfect surface qualities and excellent lifetime in the described types of wood (without gluelines), compare to Fig. 2. In addition, weight of the blades is reduced by around 40%.

### TIGRALLOY provides decisive advantages in most solid woods:

- **Tool life:** in many types of wood tool life is increased substantially compared to tungsten carbide, especially in hardwoods.
- Excellent **surface quality:** The high bending strength and the composition of the material allow very sharp cutting edges, which reduce the cutting pressure.
- Increased **productivity** as TIGRALLOY makes possible to run in greater feed rates and revolution speeds.
- **Secure processing:** TIGRALLOY is required to 100% free of macropores, thus no multiple production due to porosity.

#### TL48 - for circular saw blades and band saws

##### recommended:

nearly all kinds of raw woods, frozen wood  
recycling of wood with impurities (e.g. pellets)

##### not recommended:

board materials, glued-up wood  
extremely abrasive or resinified woods

#### TL60 - for planers, indexable inserts and brazed profiling tools

##### recommended:

Abachi	Incense cedar	Pine
Afromosia	Larch	Plane
Afzelia (min. 12% humidity)	Limba	Poplar
Alder	Mahogany (American red)	Ramin
Ash	Makoré	Redwood
Avodiré	Maple (European)	Sapele
Beech (min. 12% humidity)	Mengkulang	Sipo
Birch (European)	Meranti	Sugar pine
Cedar (Western Red)	Oak (American Red)	Tasmanian Oak
Cedar	Oak (European)	Tola branca
Cherry	Oak (Japanese)	Walnut
Chestnut (cultivated)	Okan	Willow
Elm	Okoumé	
Fir	Oregon pine	
Framiré	Parana pine	
Hemlock	Pear	

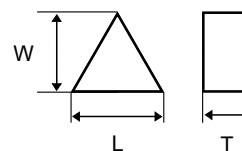
##### not recommended:

board materials, glued-up wood,  
extremely abrasive or resinified woods

Afzelia (dry)	Mukulungu
Azobé	Muninga
Balau	Oak American white
Beech (dry)	Ogea
Boxwood	Padouk
Bubinga	Panga Panga
Hickory	Purpleheart
Hornbeam	Red kabbes
Keruing	Rosewood Rio
Lignum vitae	Saligna gum
Maple American	Tali
Merbau	Teak
Movingui	Wengé

Fig.: Application recommendations for both TIGRALLOY grades.

EN TIGRALLOY - Saw tips  
 DE TIGRALLOY - Sägezähne  
 FR TIGRALLOY - Dents de scie  
 IT TIGRALLOY - Dentelli per lame  
 ES TIGRALLOY - Dientes de sierra



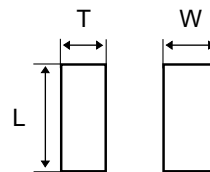
### Triangles 60°

60T.180	L		W		T/Kerf		TL48
	inch	mm	inch	mm	inch	mm	
.084	0.18	4.572	0.156	4.0	0.084	2.1	139103
.103	0.18	4.572	0.156	4.0	0.103	2.6	139102
.105	0.18	4.572	0.156	4.0	0.105	2.7	139101
.110	0.18	4.572	0.156	4.0	0.110	2.8	138577
.120	0.18	4.572	0.156	4.0	0.120	3.0	138582
.130	0.18	4.572	0.156	4.0	0.130	3.3	138583
.140	0.18	4.572	0.156	4.0	0.140	3.6	138584
.150	0.18	4.572	0.156	4.0	0.150	3.8	138585
.160	0.18	4.572	0.156	4.0	0.160	4.1	138586
.170	0.18	4.572	0.156	4.0	0.170	4.3	138588
.180	0.18	4.572	0.156	4.0	0.180	4.6	141545
.190	0.18	4.572	0.156	4.0	0.190	4.8	141546

60T.250	L		W		T/Kerf		TL48
	inch	mm	inch	mm	inch	mm	
.110	0.25	6.35	0.217	5.5	0.110	2.8	132644
.120	0.25	6.35	0.217	5.5	0.120	3.0	132645
.130	0.25	6.35	0.217	5.5	0.130	3.3	132646
.140	0.25	6.35	0.217	5.5	0.140	3.6	132647
.150	0.25	6.35	0.217	5.5	0.150	3.8	132648
.160	0.25	6.35	0.217	5.5	0.160	4.1	132649
.170	0.25	6.35	0.217	5.5	0.170	4.3	132650
.180	0.25	6.35	0.217	5.5	0.180	4.6	132651
.190	0.25	6.35	0.217	5.5	0.190	4.8	132652
.200	0.25	6.35	0.217	5.5	0.200	5.1	132653
.210	0.25	6.35	0.217	5.5	0.210	5.3	132654
.220	0.25	6.35	0.217	5.5	0.220	5.6	132655
.230	0.25	6.35	0.217	5.5	0.230	5.8	132656
.240	0.25	6.35	0.217	5.5	0.240	6.1	132657
.250	0.25	6.35	0.217	5.5	0.250	6.4	132658
.260	0.25	6.35	0.217	5.5	0.260	6.6	132659
.270	0.25	6.35	0.217	5.5	0.270	6.9	132660
.280	0.25	6.35	0.217	5.5	0.280	7.1	132661

EN We supply all kinds of TIGRALLOY saw tips. Just give us dimensions and quantities.  
 DE Wir liefern alle Arten von TIGRALLOY Sägezähne. Bitte geben Sie uns nur Abmessungen und Mengen an.  
 FR Nous fournissons toutes sortes de dents de scie TIGRALLOY. Il suffit de nous donner des dimensions et des quantités s'il vous plaît.  
 IT Forniamo tutti i tipi di TIGRALLOY inoltre ha visto punte. Per favore basta darci le dimensioni e le quantità soddisfanno.  
 ES Suministramos todo tipo de TIGRALLOY vieron consejos. Sólo nos dan las dimensiones y cantidades por favor.

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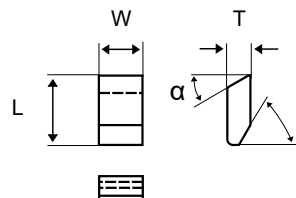


inch

### Rectangles

L		T		W		TL48
inch	mm	inch	mm	inch	mm	
<b>0.18</b>	4.57	<b>0.090</b>	2.29	<b>0.125</b>	3.18	<b>141186</b>
<b>0.18</b>	4.57	<b>0.090</b>	2.29	<b>0.150</b>	3.81	<b>141187</b>
<b>0.205</b>	5.21	<b>0.105</b>	2.67	<b>0.165</b>	4.19	<b>141196</b>
<b>0.240</b>	6.10	<b>0.090</b>	2.29	<b>0.125</b>	3.18	<b>141176</b>
<b>0.240</b>	6.10	<b>0.120</b>	3.05	<b>0.150</b>	3.81	<b>132670</b>
<b>0.240</b>	6.10	<b>0.120</b>	3.05	<b>0.175</b>	4.45	<b>132672</b>
<b>0.240</b>	6.10	<b>0.120</b>	3.05	<b>0.187</b>	4.75	<b>132673</b>
<b>0.240</b>	6.10	<b>0.120</b>	3.05	<b>0.200</b>	5.08	<b>132674</b>
<b>0.300</b>	7.62	<b>0.120</b>	3.05	<b>0.150</b>	3.81	<b>141208</b>
<b>0.300</b>	7.62	<b>0.120</b>	3.05	<b>0.187</b>	4.75	<b>141212</b>
<b>0.300</b>	7.62	<b>0.125</b>	3.18	<b>0.150</b>	3.81	<b>132663</b>
<b>0.300</b>	7.62	<b>0.125</b>	3.18	<b>0.165</b>	4.19	<b>132665</b>
<b>0.300</b>	7.62	<b>0.125</b>	3.18	<b>0.175</b>	4.45	<b>132666</b>
<b>0.300</b>	7.62	<b>0.125</b>	3.18	<b>0.187</b>	4.750	<b>132667</b>
<b>0.300</b>	7.62	<b>0.125</b>	3.18	<b>0.200</b>	5.08	<b>132668</b>
<b>0.300</b>	7.62	<b>0.150</b>	3.81	<b>0.150</b>	3.81	<b>141201</b>
<b>0.300</b>	7.62	<b>0.150</b>	3.81	<b>0.165</b>	4.19	<b>141203</b>
<b>0.300</b>	7.62	<b>0.150</b>	3.81	<b>0.225</b>	5.72	<b>141207</b>
<b>0.300</b>	7.62	<b>0.150</b>	3.81	<b>0.250</b>	6.35	<b>141586</b>

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### inch

CWF	L		T		W/Kerf		TL48
	inch	mm	inch	mm	inch	mm	
.100	0.5	12.7	0.125	3.2	0.100	2.5	137175
.110	0.5	12.7	0.125	3.2	0.110	2.8	137176
.120	0.5	12.7	0.125	3.2	0.120	3.1	135859
.130	0.5	12.7	0.125	3.2	0.130	3.3	135860
.140	0.5	12.7	0.125	3.2	0.140	3.6	135861
.150	0.5	12.7	0.125	3.2	0.150	3.8	135862
.160	0.5	12.7	0.125	3.2	0.160	4.1	137177
.165	0.5	12.7	0.125	3.2	0.165	4.2	135863
.170	0.5	12.7	0.125	3.2	0.170	4.3	135864
.180	0.5	12.7	0.125	3.2	0.180	4.6	137178
.190	0.5	12.7	0.125	3.2	0.190	4.8	137179
.200	0.5	12.7	0.125	3.2	0.200	5.1	137180
.210	0.5	12.7	0.125	3.2	0.210	5.3	137181
.220	0.5	12.7	0.125	3.2	0.220	5.6	137182
.230	0.5	12.7	0.125	3.2	0.230	5.8	137183
.240	0.5	12.7	0.125	3.2	0.240	6.1	137184
.250	0.5	12.7	0.125	3.2	0.250	6.4	137185
.437	0.5	12.7	0.125	3.2	0.437	11.1	139104
.500	0.5	12.7	0.125	3.2	0.500	12.7	139105

### metric

8.5 x 2.5	L	T	W/Kerf	TL48
	mm	mm	mm	
	8.5	2.5	2.4	137420
	8.5	2.5	2.6	138684
	8.5	2.5	2.8	137602
	8.5	2.5	3.0	138688
	8.5	2.5	3.2	138707
	8.5	2.5	3.4	138709

11 x 4	L	T	W/Kerf	TL48
	mm	mm	mm	
	11.0	4.0	4.0	137197
	11.0	4.0	4.5	137198
	11.0	4.0	5.0	136535
	11.0	4.0	5.5	137199
	11.0	4.0	6.0	137200
	11.0	4.0	6.5	137201

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