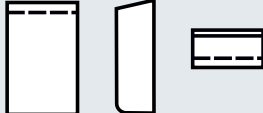





- EN Saw tips for metal cutting
- DE Sägezähne für die Metallbearbeitung
- FR Dents de scie pour l'usinage du métal
- IT Dentelli per lame per la lavorazione di metalli
- ES Dientes de sierra para trabajo de metal

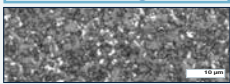
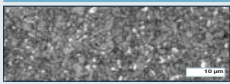
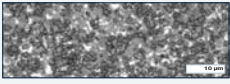
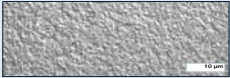
EN Saw tips  
 DE Sägezähne  
 FR Dents de scie  
 IT Dentelli per lame  
 ES Dientes de sierra

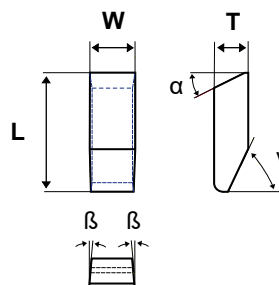
	<p>EN Grade chart          DE Sortentabelle          FR Tableau des nuances          IT Tabella delle tipologie di metallo duro          ES Tabla de calidades</p>	<p>54</p>
	<p>EN Carbide saw tips for circular saws          DE Hartmetallsägezähne für Kreissägen          FR Dents de scie pour scies circulaires          IT Dentelli per lame circolari          ES Dientes de sierra para sierras circulares</p> <p><i>metric          metrisch          métrique          metrico          métrico</i></p>	<p>55 - 58</p>
	<p>EN Carbide saw tips for circular saws          DE Hartmetallsägezähne für Kreissägen          FR Dents de scie pour scies circulaires          IT Dentelli per lame circolari          ES Dientes de sierra para sierras circulares</p> <p><i>inch</i></p>	<p>59</p>

EN For sawtips in woodworking grades please refer to our catalog "Woodworking".  
 DE Für Sägezähne in Holzbearbeitungssorten beachten Sie bitte unseren Katalog "Holzbearbeitung".  
 FR Pour les dents de scie en nuances pour le travail du bois s.v.p. consultez notre catalogue "Travail du bois".  
 IT Per i dentelli per lame per la lavorazione del legno consultare il nostro catalogo "Lavorazione del legno".  
 ES Para dientes de sierra en las calidades de madera, consulte nuestra catálogo "Trabajo de madera".

- EN Carbide saw tips - Carbide grades and their applications  
 DE Hartmetallsägezähne - Hartmetallsorten und ihre Anwendungen  
 FR Dents de scie - Les nuances de carbures et leurs applications  
 IT Dentelli per lame - I tipi di metallo duro e le loro applicazioni  
 ES Dientes de sierra - Calidades de metal duro y sus aplicaciones

EN DE FR IT ES	TIGRA grade TIGRA - Sorte Nuance TIGRA Tipo TIGRA Calidad TIGRA	Co %	TiC + TaC %	Hardness Härte Dureté Durezza Durezza		Bending strength Biegebruchfestigkeit Résistance à la flexion Resistenza flessionale Resistencia a la flexión		Toughness Zähigkeit Ténacité Tenacità Tenacidad K <sub>1C</sub> / MPa.m <sup>-1/2</sup>
				HV 10	(HRA) ± 0,2	(N/mm <sup>2</sup> )	psi	
	<b>TP25</b>	11	21	1500	91.2	1950	283.000	8.8
	<b>TP25e</b>	9	12.5	1490	91.1	1850	268.000	8.7
	<b>TP35</b>	11.4	14.4	1400	90.3	2050	297.000	12.0
	<b>T06F</b>	6	0	1740	92.7	2350	341.000	9.0

EN DE FR IT ES	TIGRA grade TIGRA - Sorte Nuance TIGRA Tipo TIGRA Calidad TIGRA	Main usage Hauptanwendung Utilisation principale Uso principale Uso principal
	<b>TP25</b> 	EN Steel sawing with coolant, highest lifetime DE Sägen von Stahl mit Kühlmittel, höchste Lebensdauer FR Sciage de l'acier avec réfrigérant, durée de vie maximale IT Segatura di acciaio con liquido refrigerante, durata massima ES Trazado de acero con refrigerante, tiempo de vida más alta
	<b>TP25e</b> 	EN Excellent for dry cutting, economic steel cutting grade DE Hervorragend geeignet für Trockenschnitt, wirtschaftliche Sorte fürs Stahlschneiden FR Excellent pour la coupe à sec, qualité de coupe en acier économique IT Eccellente per il taglio a secco, qualità economica per il taglio di acciaio ES Excelente para corte en seco, económica grado de corte de acero
	<b>TP35</b> 	EN Extremely tough grade for cast iron, railway tracks, heavily interrupted cutting DE Extrem zähe Sorte für Gusseisen, Eisenbahnschienen, stark unterbrochener Schnitt FR Nuance extrêmement dure pour la fonte, voies ferrées, coupe fortement discontinue IT Tipo estremamente duro per ghisa, binari ferroviari, taglio fortemente interrotto ES Calidad extremadamente resistente para fundición, las vías del ferrocarril, corte muy interrumpido
	<b>T06F</b> 	EN Cutting of non-ferrous metals DE Schneiden von NE-Metallen FR Coupe de métaux non ferreux IT Taglio di metalli non ferrosi ES El corte de metales no ferrosos



EN metric  
DE metrisch  
FR métrique  
IT metrico  
ES métrico

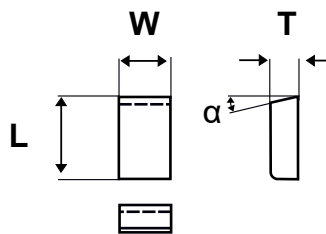
- EN Carbide saw tips for circular saws
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L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
6.5	2.0	2.0	27	5	56	125018	125019	125020	111686
6.5	2.5	2.0	27	5	56	125021	125022	125023	111687
6.5	2.7	2.0	27	5	56	125059	125060	125061	125016
6.5	3.0	2.0	27	5	56	124752	124853	124753	111688
6.5	3.5	2.0	27	5	56	125024	125025	125026	111689
6.5	3.8	2.0	27	5	56	125027	125028	125029	111690
6.5	4.0	2.0	27	5	56	125030	125031	125032	120254

L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
8.0	2.2	2.3	27	5	70	125035	125036	125037	111647
8.0	2.5	2.3	27	5	70	125038	125039	125040	121535
8.0	3.0	2.3	27	5	70	125041	125042	125043	111651
8.0	3.4	2.3	27	5	70	125044	125045	125046	116207
8.0	3.5	2.3	27	5	70	125047	125048	125049	111653
8.0	3.6	2.3	27	5	70	125050	125051	125052	111654
8.0	4.0	2.3	27	5	70	125053	125054	125055	111656
8.0	4.3	2.3	27	5	70	125056	125057	125058	111657

L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
10.5	3.0	3.0	27	5	65	125063	125064	125065	111507
10.5	3.5	3.0	27	5	65	125066	125067	125068	111508
10.5	4.3	3.0	27	5	65	125069	125070	125071	111512
10.5	5.0	3.0	27	5	65	125072	125073	125074	111517
10.5	5.5	3.0	27	5	65	125075	125076	125077	111519
10.5	6.0	3.0	27	5	65	125078	125079	125080	111521

- EN Carbide saw tips for circular saws
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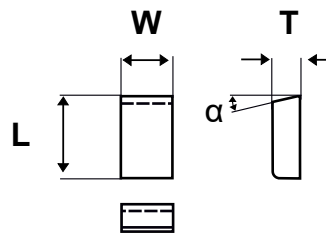


EN metric  
DE metrisch  
FR métrique  
IT métrico  
ES métrico

L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
8.0	2.4	2.6	8	0	0	125084	125085	125086	125082
8.0	3.8	2.6	8	0	0	125088	125089	125090	125087
8.0	4.4	2.6	8	0	0	125092	125093	125094	125091
8.0	5.2	2.6	8	0	0	125096	125097	125098	125095
8.0	6.0	2.6	8	0	0	125100	125101	125102	125099

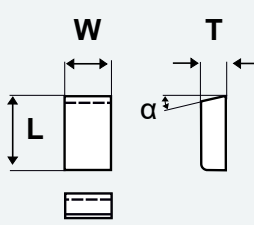
L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
8.0	6.2	3	8	0	0	125111	125112	125113	125110
8.0	7.0	3	8	0	0	125115	125116	125117	125114
8.0	8.2	3	8	0	0	125119	125120	125121	125118
8.0	10.0	3	8	0	0	125123	125124	125125	125122
8.0	11.5	3	8	0	0	125127	125128	125129	125126

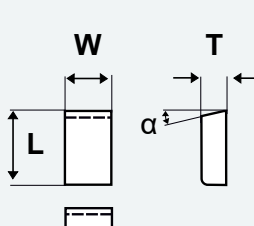
L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
10.0	4.2	4	8	0	0	125170	125171	125172	125163
10.0	5.0	4	8	0	0	125174	125175	125176	125173
10.0	5.2	4	8	0	0	125178	125179	125180	125177
10.0	5.6	4	8	0	0	125182	125183	125184	125181
10.0	6.0	4	8	0	0	125186	125187	125188	125185
10.0	6.2	4	8	0	0	125190	125191	125192	125189
10.0	7.2	4	8	0	0	125194	125195	125196	125193
10.0	7.5	4	8	0	0	125198	125199	125200	125197
10.0	8.2	4	8	0	0	125202	125203	125204	125201
10.0	9.0	4	8	0	0	125206	125207	125208	125205
10.0	9.2	4	8	0	0	125210	125211	125212	125209
10.0	11.0	4	8	0	0	125214	125215	125216	125213
10.0	13.0	4	8	0	0	125218	125219	125220	125217

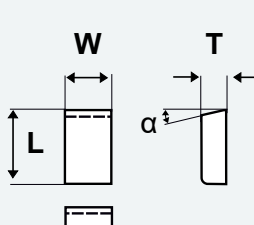


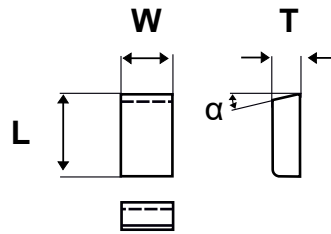
EN metric  
DE metrisch  
FR métrique  
IT metrico  
ES métrico

- EN Carbide saw tips for circular saws
- DE Hartmetallsägezähne für Kreissägen
- FR Dents de scie en carbure pour scies circulaires
- IT Dentelli per lame circolari
- ES Dientes de sierra para sierras circulares

	L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
	10.5	4.0	2.6	8	0	0	125140	125141	125142	125137
	10.5	4.4	2.6	8	0	0	125144	125145	125146	125143
	10.5	4.8	2.6	8	0	0	125148	125149	125150	125147
	10.5	5.5	2.6	8	0	0	125152	125153	125154	125151
	10.5	5.7	2.6	8	0	0	125156	125157	125158	125155
	10.5	6.0	2.6	8	0	0	125160	125161	125162	125159

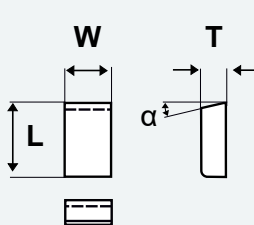
	L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
	12.0	5.6	4	8	0	0	125223	125224	125225	125222
	12.0	6.2	4	8	0	0	125227	125228	125229	125226
	12.0	7.0	4	8	0	0	125231	125232	125233	125230
	12.0	7.2	4	8	0	0	125235	125236	125237	125234
	12.0	7.5	4	8	0	0	125239	125240	125241	125238
	12.0	8.0	4	8	0	0	125243	125244	125245	125242
	12.0	8.5	4	8	0	0	125247	125248	125249	125246
	12.0	9.0	4	8	0	0	125251	125252	125253	125250
	12.0	9.2	4	8	0	0	125255	125256	125257	125254
	12.0	10.0	4	8	0	0	125259	125260	125261	125258
	12.0	10.2	4	8	0	0	125263	125264	125265	125262

	L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
	16.0	4.5	4	8	0	0	134966	134977	134988	134999
	16.0	5.5	4	8	0	0	134967	134978	134989	135000
	16.0	6.5	4	8	0	0	134968	134979	134990	135001
	16.0	7.5	4	8	0	0	134969	134980	134991	135002
	16.0	8.5	4	8	0	0	134970	134981	134992	135003
	16.0	9.5	4	8	0	0	134971	134982	134993	135004
	16.0	10.5	4	8	0	0	134972	134983	134994	135005
	16.0	11.5	4	8	0	0	134973	134984	134995	135006
	16.0	12.5	4	8	0	0	134974	134985	134996	135007
	16.0	13.5	4	8	0	0	134975	134986	134997	135008
	16.0	14.0	4	8	0	0	134976	134987	134998	135009

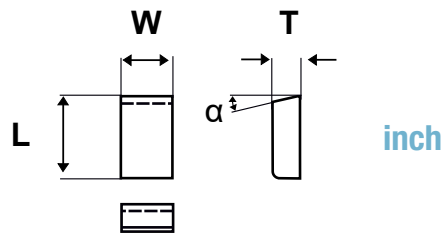


EN metric  
DE metrisch  
FR métrique  
IT métrico  
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- EN Carbide saw tips for circular saws  
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	L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
	20	10.2	6	8	0	0	135010	135021	135033	135044
	20	11.2	6	8	0	0	135011	135022	135034	135045
	20	12.2	6	8	0	0	135012	135023	135035	135046
	20	13.2	6	8	0	0	135013	135024	135036	135047
	20	14.2	6	8	0	0	135014	135025	135037	135048
	20	15.2	6	8	0	0	135015	135026	135038	135049
	20	16.2	6	8	0	0	135016	135027	135039	135050
	20	17.2	6	8	0	0	135017	135028	135040	135051
	20	18.2	6	8	0	0	135018	135029	135041	135052
	20	19.2	6	8	0	0	135019	135030	135042	135053
	20	20.2	6	8	0	0	135020	135031	135043	135054

	L mm	W mm	T mm	$\alpha$	$\beta$	$\gamma$	TP25	TP25e	TP35	T06F
	3.7	2.3	2.5	8	0	45	125267	125268	125269	125266
	3.7	2.5	2.5	8	0	45	125271	125272	125273	125270
	3.7	2.8	2.5	8	0	45	125275	125276	125277	125274
	3.7	3.0	2.5	8	0	45	125279	125280	125281	125278
	3.7	3.3	2.5	8	0	45	125283	125284	125285	125282
	3.7	4.0	2.5	8	0	45	125287	125288	125289	125286



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 IT Dentelli per lame circolari  
 ES Dientes de sierra para sierras circulares

L		W		T		$\alpha$	TP25	TP25e	TP35	T06F
inch	mm	inch	mm	inch	mm					
<b>0.281</b>	7.1	<b>0.16</b>	4.1	<b>0.125</b>	3.2	<b>10</b>	<b>125293</b>	<b>125294</b>	<b>125295</b>	<b>125292</b>
<b>0.281</b>	7.1	<b>0.18</b>	4.6	<b>0.125</b>	3.2	<b>10</b>	<b>125297</b>	<b>125298</b>	<b>125299</b>	<b>125296</b>
<b>0.281</b>	7.1	<b>0.2</b>	5.1	<b>0.125</b>	3.2	<b>10</b>	<b>125301</b>	<b>125302</b>	<b>125303</b>	<b>125300</b>

L		W		T		$\alpha$	TP25	TP25e	TP35	T06F
inch	mm	inch	mm	inch	mm					
<b>0.375</b>	9.5	<b>0.23</b>	5.8	<b>0.17</b>	4.3	<b>10</b>	<b>131697</b>	<b>131706</b>	<b>131715</b>	<b>131724</b>
<b>0.375</b>	9.5	<b>0.25</b>	6.4	<b>0.17</b>	4.3	<b>10</b>	<b>131698</b>	<b>131707</b>	<b>131716</b>	<b>131725</b>
<b>0.375</b>	9.5	<b>0.27</b>	6.9	<b>0.17</b>	4.3	<b>10</b>	<b>131699</b>	<b>131708</b>	<b>131717</b>	<b>131726</b>
<b>0.375</b>	9.5	<b>0.28</b>	7.1	<b>0.17</b>	4.3	<b>10</b>	<b>131700</b>	<b>131709</b>	<b>131718</b>	<b>131727</b>
<b>0.375</b>	9.5	<b>0.30</b>	7.6	<b>0.17</b>	4.3	<b>10</b>	<b>125305</b>	<b>125306</b>	<b>125307</b>	<b>125304</b>
<b>0.375</b>	9.5	<b>0.32</b>	8.1	<b>0.17</b>	4.3	<b>10</b>	<b>131701</b>	<b>131710</b>	<b>131719</b>	<b>131728</b>
<b>0.375</b>	9.5	<b>0.33</b>	8.4	<b>0.17</b>	4.3	<b>10</b>	<b>125309</b>	<b>125310</b>	<b>125311</b>	<b>125308</b>
<b>0.375</b>	9.5	<b>0.34</b>	8.6	<b>0.17</b>	4.3	<b>10</b>	<b>131702</b>	<b>131711</b>	<b>131720</b>	<b>131729</b>
<b>0.375</b>	9.5	<b>0.36</b>	9.1	<b>0.17</b>	4.3	<b>10</b>	<b>131703</b>	<b>131712</b>	<b>131721</b>	<b>131730</b>
<b>0.375</b>	9.5	<b>0.38</b>	9.7	<b>0.17</b>	4.3	<b>10</b>	<b>131704</b>	<b>131713</b>	<b>131722</b>	<b>131731</b>
<b>0.375</b>	9.5	<b>0.40</b>	10.2	<b>0.17</b>	4.3	<b>10</b>	<b>131705</b>	<b>131714</b>	<b>131723</b>	<b>131732</b>