



# DeguDent alloy overview

	Alloy					Composition in mass-%													Alloy			Casting Parameters			Heat-soaking			Oxidation		Porcelains		Annealing temperature		Alloy		Specifications									
	Introduced (year)	Type	Colour	Indications	Au- / Pt group- metals	Au	Pt	Pd	Ag	Cu	Sn	Zn	In	Other	Melting range °C	Preheating temperature °C	Casting temperature °C	With open flame Propane / O <sub>2</sub>	With resistance-heated melting systems <sup>9)</sup>	With HF- and arc-casting devices	T (°C) / t (min) V = Vacuum A = Atmosphere	°C / 15 min	°C / 15 min	°C / 15 min	Average linear CTE μm / m · K (25–500 °C) (25–600 °C)	Vickers hardness HV 5 w h c/f	0.2% yield strength <sup>11)</sup> N / mm <sup>2</sup> c/f h	Tensile strength <sup>11)</sup> N / mm <sup>2</sup> c/f h	Elongation <sup>11)</sup> in % c/f h	Density g / cm <sup>3</sup>															
High-gold	<b>venerable with high fusing ceramics</b>																																												
	BiOcclus Kiss	2005	extra hard	yellow	4	97.7	81.6	16.0						1.4	0.5	Ir: 0.1; Nb: 0.4	BiOcclus Kiss	1050 – 1160	850	1310	5 s – 10 s	60 s	5 s – 10 s	900 / 5 / A	19)	14.2	14.4	150	220	220	530	530	630	640	9	8	19.0								
	BiOcclus HT	2001	extra hard	yellow	4	97.9	85.4	12.0						1.8		Ir: 0.1; Rh: 0.4; Nb: 0.1; Fe: 0.2	BiOcclus HT	1055 – 1130	800	1280	5 s – 10 s	60 s	5 s – 10 s	900 / 5 / A	500	14.5	14.7	210	230	220	510	530	610	630	6	6	19.1								
	BiOcclus 4	1995	extra hard	yellow	4	97.5	85.8	11.0						0.5	1.7	Rh: 0.7; Ta: 0.3	BiOcclus 4	1040 – 1140	800	1300	5 s – 10 s	60 s	5 s – 10 s	930 / 5 / A	600	14.2	14.5	150	210	160	410	530	520	640	12	8	19.0								
	BiOcclus N	1997	extra hard	yellow	4	97.8	85.6	11.9						1.6		Ir: 0.1; Rh: 0.2; Nb: 0.4; Fe: 0.2	BiOcclus N	1040 – 1115	800	1260	5 s – 10 s	60 s	5 s – 10 s	900 / 5 / A	450	14.4	14.6	200	220	205	500	520	605	630	7	6	19.2								
	BiOcclus Gold	2006	extra hard	yellow	4	98.0	88.3	9.6						1.6	0.3	Ir: 0.1; Nb: 0.1	BiOcclus Gold	1050 – 1130	800	1270	5 s – 10 s	60 s	5 s – 10 s	900 / 5 / A	19)	14.7	14.9	110	210	200	510	510	570	590	5	5	19.1								
	Biobond III	1987	extra hard	bright yellow	4	99.0	82.6	16.1						1.0		Ir: 0.3	Biobond III	1140 – 1220	850	1350 – 1400	5 s – 10 s	60 s	5 s – 10 s	930 / 5 / A	500	13.9	14.2	160	200	200	350	470	460	550	15	8	19.5								
	Biobond SG IV	1996	extra hard	yellow	4	97.9	83.7	13.2						0.5	1.3	Rh: 1.0; Ta: 0.3	Biobond SG IV	1040 – 1150	800	1330	5 s – 10 s	60 s	5 s – 10 s	930 / 5 / A	600	14.2	14.4	160	190	165	405	500	515	585	13	8	18.4								
	Degudent U	1967	extra hard	white	4, 7	96.1	77.3	9.8	8.9	1.2	0.3	0.5		1.5		Ir: 0.1; Re: 0.2; Fe: 0.2	Degudent U	1150 – 1260	850	1370 – 1420	5 s – 10 s	180 s	5 s – 10 s	930 / 5 / A	Ⓐ Ⓒ	600	13.8	14.0	200	240	210	490	580	620	630	11	3	18.0							
	Degudent H	1977	extra hard	bright yellow	4, 6, 7	97.4	84.4	8.0	5.0					2.5		Ta: 0.1	Degudent H	1100 – 1210	850	1350 – 1400	5 s – 10 s	120 s	5 s – 10 s	930 / 5 / A	500	14.2	14.4	190	220	200	480	600	580	620	8	3	18.1								
Degudent U 94	1982	extra hard	white	4, 7	94.6	76.0	9.6	8.9	2.4	0.3	0.8		1.5		Ir: 0.1; Re: 0.2; Ta: 0.2	Degudent U 94	1140 – 1250	850	1370 – 1420	5 s – 10 s	180 s	5 s – 10 s	930 / 5 / A	600	13.8	14.1	180	220	180	420	470	550	550	9	3	17.9									
Degudent Kiss	2004	extra hard	bright yellow	4, 6, 7	96.0	79.4	10.5	6.0	1.3				1.0		Ir: 0.1; Ta: 0.2	Degudent Kiss	1140 – 1220	850	1370	5 s – 10 s	120 s	5 s – 10 s	930 / 5 / A	600	14.1	14.3	110	230	220	590	590	670	670	6	4	18.2									
Degudent G	1974	extra hard	yellow	4	98.0	86.0	10.4						1.5		Rh: 1.6; Ta: 0.5	Degudent G	1045 – 1140	800	1270 – 1320	5 s – 10 s	60 s	5 s – 10 s	930 / 5 / A	600	14.5	14.7	150	195	175	380	470	490	530	12	9	18.4									
DG 88	1994	extra hard	white	3, milling	97.9	80.6	17.0						1.9		Ir: 0.3; Ta: 0.2	DG 88	1050 – 1190	850	1350	5 s – 10 s	60 s	5 s – 10 s	930 / 5 / A	480 °C / 10 min	13.8	14.1	205	230	205	540	600	650	705	12	10	19.0									
Degutan	1996	extra hard	white	4, 7	97.9	80.2	4.0	13.5					2.1		Ir: 0.2	Degutan	1195 – 1280	850	1440	5 s – 10 s	120 s	5 s – 10 s	930 / 5 / A	600	13.9	14.0	150	240	215	550	640	655	720	12	5	17.4									
Degudent Eco	2010	extra hard	white	4, 6, 7	79.9	40.0	39.8	12.4					7.5		Ta: 0.2; Ru: 0.1	Degudent Eco	1225 – 1290	850	1440	5 s – 10 s	180 s	5 s – 10 s	930 / 5 / A	700	14.1	14.4	190	285	230	485	750	800	995	19	9	13.8									
Deva 4	1981	extra hard	white	4	89.8	51.1		38.5					9.0		Ir: 0.2; Ga: 1.2	Deva 4	1235 – 1315	900	1400 – 1450	5 s – 10 s	180 s	5 s – 10 s	980 / 10 / A	Ⓐ Ⓒ	600	13.5	13.8	200	235	220	500	545	700	710	25	18	14.5								
Degubond 4	1981	extra hard	white	4	78.7	49.6	29.0	17.5					3.0		Ir: 0.1; Ga: 0.5; Ta: 0.1; Re: 0.2	Degubond 4	1160 – 1280	850	1400 – 1450	5 s – 10 s	180 s	5 s – 10 s	980 / 10 / A	Ⓐ Ⓒ	700	14.5	14.7	195	250	230	530	550	720	720	11	9	14.5								
Degudor	1992	extra hard	white	4	89.8	55.1		34.5					9.0		Ir: 0.2; Ga: 1.2	Degudor	1190 – 1275	900	1400 – 1450	5 s – 10 s	180 s	5 s – 10 s	980 / 10 / A	Ⓐ Ⓒ	600	13.7	14.0	220	260	240	550	620	800	800	15	11	14.8								
Palladium-based	Econolloy Pd	2006	extra hard	white	4, 5, 7	58.0		57.8	30.0	6.0	2.0	4.0	Ru: 0.2			Econolloy Pd	1175 – 1275	900	1400 – 1450	5 s – 10 s	180 s	5 s – 10 s	980 / 10 / A	Ⓐ Ⓒ	700	14.9	15.2	160	260	260	650	650	810	810	8	8	11.4								
	Degustar F	1991	extra hard	white	4, 5, 7	52.0		51.9	38.0	7.5	1.0	1.5	Ru: 0.1			Degustar F	1150 – 1230	850 – 900	1370 – 1420	5 s – 10 s	30 s	5 s – 10 s	980 / 10 / A	Ⓐ Ⓒ	600	15.1	15.4	200	250	220	560	560	800	800	12	10	11.2								
	Pors-on 4	1983	extra hard	white	4, 5, 7	58.0		57.8	30.0	6.0	2.0	4.0	Ru: 0.2			Pors-on 4	1175 – 1275	900	1400 – 1450	5 s – 10 s	180 s	5 s – 10 s	980 / 10 / A	Ⓐ Ⓒ	700	14.9	15.2	160	260	260	650	650	810	810	8	8	11.4								
	Degupal G	1990	extra hard	white	4, 5, 6, 7	82.3	4.5	77.3	7.2					4.0		Ru: 0.5; Ga: 6.0; Ge: 0.5	Degupal G	1170 – 1295	900	1400 – 1450	5 s – 10 s	180 s	5 s – 10 s	980 / 10 / A	Ⓐ Ⓒ	600	14.1	14.3	255	255	255	585	585	855	855	28	28	11.7							
High-gold	<b>venerable with low fusing ceramics</b>																																												
	Degunorm	1992	extra hard	yellow	4, 5, 7 <sup>8)</sup>	82.9	73.8	9.0		9.2	4.4		2.0	1.5	Ir: 0.1	Degunorm	900 – 990	700	1050 – 1200	5 s – 10 s	30 s	5 s – 10 s	780 / 5 / V	450	16.7	16.8	150	230	200	480	500	630	650	12	6	16.7									
	Degunorm supra	2003	extra hard	yellow	4, 5, 7 <sup>8)</sup>	81.8	73.2	3.2	6.3	13.8		0.5	2.9		0.8	Ir: 0.1	Degunorm supra	1035 – 1080	800	1240	5 s – 10 s	60 s	5 s – 10 s	780 / 5 / V	550	16.1	16.6	150	240	220	645	650	680	680	7	6	16.1								
	Degunorm pur	2003	extra hard	yellow	4 <sup>9)</sup> 10)	82.0	72.7	8.2		15.9		2.2	0.8	0.1	Ta: 0.1	Degunorm pur	990 – 1040	750	1200	5 s – 10 s	30 s	5 s – 10 s	780 / 5 / V	550	16.1	16.3	130	210	175	450	480	590	640	8	6	16.8									
	Degunorm logic	2001	extra hard	yellow	4 <sup>9)</sup> 10)	83.5	73.8	9.0		13.6		2.0	0.5	0.1	Rh: 0.6; Ta: 0.4	Degunorm logic	1010 – 1070	750	1210	5 s – 10 s	30 s	5 s – 10 s	780 / 5 / V	19)	16.0	16.2	130	230	190	450	500	600	650	12	8	16.8									
	Degudent LTG	1995	extra hard	yellow	4, 5, 7 <sup>8)</sup>	80.5	73.1	1.5	5.8	16.0		0.5	3.0		0.1	Ir: 0.1	Degudent LTG	985 – 1065	750	1160 – 1210	5 s – 10 s	30 s	5 s – 10 s	780 / 5 / V	19)	16.1	16.6	150	235	235	560	560	640	640	3	5	15.7								
	Degunorm eco	2001	extra hard	bright yellow	4 <sup>8)</sup>	70.7	59.8	5.9	4.9	24.3		3.5	1.5	0.1		Degunorm eco	970 – 1030	700	1180	5 s – 10 s	30 s	5 s – 10 s	780 / 5 / V	Ⓑ	550	16.6	17.1	150	220	200	600	610	680	690	5	3	14.9								
	Stabilor LTG	1999	extra hard	bright yellow	4 <sup>8)</sup>	71.0	58.0		12.9	25.0		4.0		0.1		Ir: 0.1	Stabilor LTG	1020 – 1090	750	1250	5 s – 10 s	30 s	5 s – 10 s	780 / 5 / V	Ⓑ	450	16.7	17.1	150	260	190	460	660	600	800	14	11	14.1							
	Econolloy	2004	extra hard	bright yellow	4 <sup>8)</sup>	55.1	38.0		17.0	36.0				8.9	0.1		Econolloy	1020 – 1075	800	1230	5 s – 10 s HF <sup>14)</sup>	30 s	5 s – 10 s	980 / 10 / A	550	16.9	17.3	165	240	190	560	630	610	640	3	w=5	13.1								
	Econolloy Ag	2006	extra hard	white	4 <sup>8)</sup>	37.0		36.9	56.0		3.0	4.0		0.1		Ir: 0.1	Econolloy Ag	1050 – 1130	800	1250 – 1300	5 s – 10 s	120 s	5 s – 10 s	800 / 5 / V	550	16.5	16.9	155	230	170	330	510	560	730	10	8	10.9								
Degullight	1999	extra hard	white	4 <sup>8)</sup>	37.0		36.9	56.0		3.0	4.0		0.1		Ir: 0.1	Degullight	1050 – 1130	800	1250 – 1300	5 s – 10 s	120 s	5 s – 10 s	800 / 5 / V	550	16.5	16.9	155	230	170	330	510	560	730	10	8	10.9									