

Porcelain Alloys

	Alloy	Au	Pt	Pd	Ag	Cu	Other	Color	IdentAlloy Class.*	Implant Use	Laser Wire	CTE 500°C	CTE 600°C	Vickers Hardness HV	Yield Strength (0.2% offset) psi MPa		Elonga- tion %	Density dwt/in³ g/cm³		Melting Range °F °C		Casting Temperature °F °C		Burnout Temperature °F °C		Pre-Solder	Post-Solder
Golden Gate System	Degunorm®	73.8	9.0	–	9.2	4.4	Zn, In, Ir	Yellow	HN	Yes	Degunorm®	16.7	16.8	230	72,500	500	6	176	16.7	1650-1815	900-990	2010	1100	1300	700	Degunorm® 880	Degunorm® 728
	Degudent® LS	73.1	1.5	5.8	16.0	–	Zn, Sn, Ir	Yellow	HN	Yes	Degunorm®	16.1	16.6	235	81,200	560	5	165	15.7	1805-1950	985-1065	2190	1200	1300	700	Degunorm® 880	Degunorm® 728
	Sonoma®	–	–	36.9	56.0	–	Zn, Sn, Ir	White	HN			16.5	16.8	180	47,900	330	10	115	10.9	1922-2066	1050-1130	2280	1250	1300	700	Degunorm® 880	.728 Fine
Premium Yellow High Noble	Bioney®	90.0	7.3	–	1.0	–	Fe, Zn, In, Re	Yellow	HN			14.8	15.1	180	69,600	480	9	199	18.9	1890-2000	1030-1095	2175	1190	1300	700	Bio-Pre	.650 Fine
	Degudent® G	86.0	10.4	–	–	–	Rh, In, Ta	Yellow	HN		Degutan®	14.5	14.7	195	68,000	470	9	194	18.4	1915-2085	1045-1140	2370	1300	1470	800	Degudent® G-1	Degulor 2
	BiOcclus® 4	85.8	11.0	–	–	–	In, Rh, Zn, Ta	Yellow	HN		Degutan®	14.2	14.5	160	76,900	530	8	200	19.0	1900-2085	1040-1140	2370	1300	1470	800	Degudent® G-1	Degulor 2
	Image 2	84.5	6.9	5.0	1.0	–	In, Fe, Zn, Re	Yellow	HN	Yes		14.5	14.8	230	97,300	671	7	190	18.0	1994-2183	1090-1195	2354	1290	1300	700	YPG	.650/.615 Fine
	Degudent® H	84.4	8.0	5.0	–	–	In, Ta	Yellow	HN	Yes	Degutan®	14.2	14.4	220	87,000	600	3	191	18.1	2010-2210	1100-1210	2550	1400	1560	850	YPG	Degulor 2
	Super Bioney®	82.4	14.9	–	–	–	Zn, Fe, Re	Yellow	HN			14.2	14.5	220	87,000	600	6	198	18.8	1904-2048	1040-1120	2210	1210	1300	700	Bio-Pre	.650/.615 Fine
Premium White High Noble	SMG®-3	81.0	6.0	11.0	–	–	Sn, Fe, Re	White	HN	Yes		13.9	14.2	240	101,500	700	5	183	17.4	2120-2318	1160-1270	2430	1335	1300	700	SMG®-3/Ceramco® White	.650/.615 Fine
	Degudent® U	77.3	9.8	8.9	1.2	0.3	In, Sn, Re, Fe, Ir	White	HN	Yes	Degutan®	13.8	14.0	240	84,100	580	3	190	18.0	2100-2300	1150-1260	2550	1400	1560	850	YPG	Degulor 2
High Noble	SMG®-CF	67.4	–	22.0	4.9	–	In, Ga, Ru	White	HN			14.2	14.5	220	82,000	565	7	164	15.6	2183-2309	1195-1265	2530	1390	1470	800	SMG®-3	.650/.615 Fine
	UltraCrown™ SF	65.0	–	26.0	–	–	In, Sn, Ga, Ru	White	HN	Yes		14.2	14.5	254	84,000	580	8	156	14.8	2084-2313	1140-1267	2530	1390	1470	800	SMG®-3	.650/.615 Fine
	Deva® Plus	55.1	–	34.5	–	–	In, Ga, Ir	White	HN	Yes	Degutan®	13.7	14.0	260	89,900	620	11	156	14.8	2175-2325	1190-1275	2550	1400	1650	900	YPG/WPG	Regular White
	Eclipse	52.0	–	37.5	–	–	Zn, Sn, In, Re	White	HN	Yes	Degutan®	13.8	14.1	254	83,400	575	23	145	13.8	2120-2309	1160-1265	2498	1370	1300	700	SMG®-3/Ceramco® White	.650/.615 Fine
	Aspire™	52.0	–	25.6	17.2	–	Zn, In, Sn, Re	White	HN	Yes		14.4	14.7	210	52,000	360	11	150	14.2	2138-2282	1170-1250	2500	1370	1470	800	SMG®-3	.650 Fine
	Deva® 4	51.1	–	38.5	–	–	In, Ga, Ir	White	HN	Yes	Degutan®	13.5	13.8	235	79,000	545	18	153	14.5	2255-2400	1235-1315	2600	1425	1650	900	Ceramco® White/WPG	Regular White/Degulor 2
	Ceramco® White	50.3	–	30.2	14.4	–	Sn, In, Ru	White	HN		Degutan®	14.4	14.7	220	61,600	425	10	153	14.5	2300-2345	1260-1285	2550	1400	1560	850	Ceramco® White/YPG	Regular White
	Encore	48.0	–	40.0	–	–	Zn, Sn, In, Re	White	HN			14.1	14.4	250	85,900	592	20	141	13.4	2113-2330	1156-1275	2525	1385	1300	700	SMG®-3/Ceramco® White	.650/.615 Fine
	Special White	45.0	–	39.8	6.5	–	In, Sn, Ga, Ru	White	HN	Yes	Degutan®	14.1	14.4	260	89,900	620	10	152	14.4	2120-2300	1160-1260	2460	1350	1560	850	YPG/WPG	Regular White/Degulor 2
	Veritas	40.0	–	45.0	4.9	–	Sn, Zn, In, Re	White	HN			14.1	14.4	232	61,600	425	40	137	13.0	2210-2390	1210-1310	2525	1385	1300	700	WPG/Ceramco® White	.650/.615 Fine
High Palladium Noble	Ceramco® Press Pd	2.0	–	79.0	–	–	Sn, Co, Ga, Ru	White	N			14.0	14.2	240	82,000	565	20	115	10.9	2071-2332	1133-1278	2500	1370	1500	815	Silver Free Pre	.615/ Regular White
	Ovation®	3.0	–	69.8	9.7	–	Sn, Zn, In, Ga, Ru, B	White	N	Yes		14.0	14.3	255	92,800	640	16	113	10.7	2111-2345	1155-1285	2530	1385	1400	760	SMG®-YW	.650/.615 Fine
	Ultima Gold	2.0	–	77.1	–	8.3	Zn, Ga, In, Ru	White	N			14.2	14.5	245	80,000	550	28	113	10.7	2120-2335	1160-1280	2453	1345	1300	700	Option® Pre/Ceramco® White	Degulor 2/.615 Fine
	Option®	2.0	–	78.85	–	10.0	Ga, Ir, B	White	N	Yes		14.3	14.6	425	130,500	900	23	112	10.6	2012-2174	1100-1190	2354	1290	1300	700	Option® Pre/YPG	Degulor 2/.615 Fine
	Ultima Lite®	–	–	78.4	–	8.0	Zn, Ga, In, Ru	White	N		Degutan®	14.2	14.5	300	82,000	565	15	113	10.7	2147-2291	1175-1255	2453	1345	1300	700	Option® Pre/Ceramco® White	Degulor 2/.615 Fine
Palladium Silver Noble	Pors-on™ Lite	–	–	61.4	26.0	–	Sn, In, Zn, Ru	White	N			14.5	14.7	250	85,600	590	16	119	11.3	2140-2335	1170-1280	2600	1425	1650	900	YPG	Degulor 2
	Degubond® 60	–	–	60.4	28.0	–	In, Sn, Ga, Ru	White	N	Yes		14.7	15.0	260	95,700	660	12	118	11.2	2235-2335	1225-1280	2600	1425	1560	850	Ceramco® White	Regular White
	Lunar®	–	–	60.0	29.5	–	Sn, In, Ga, Zn, Ir	White	N			14.7	15.0	244	64,000	440	35	116	11.0	2156-2354	1180-1290	2500	1370	1500	815	SMG®-YW	.650/.615 Fine
	Pors-on™ Plus	15.5	–	47.5	27.5	–	Sn, In, Zn, Ru	White	N		Degutan®	14.6	14.9	250	87,800	605	15	126	12.0	2140-2290	1170-1255	2550	1400	1650	900	YPG/Degudent® G-1	Regular White/Degulor 2
	Degustar® GA-2	2.0	–	51.9	36.0	–	Sn, In, Zn, Ru	White	N	Yes	Degutan®	14.8	15.1	250	81,200	560	10	118	11.3	2100-2245	1150-1230	2550	1400	1560	850	YPG	Regular White
	Applause®	–	–	54.85	35.0	–	Sn, Zn, Ir	White	N			15.1	15.4	240	85,500	590	11	114	10.8	2156-2300	1180-1260	2453	1345	1300	700	SMG®-YW/Ceramco® White	.650/.615 Fine
Base Metal	Acclaim® Lite	–	–	49.9	39.9	–	In, Ga, Ru, Re	White	N		Degutan®	15.1	15.4	300	92,100	635	10	113	10.7	2102-2309	1150-1265	2440	1340	1300	700	WPG	.650/.615 Fine
		Ni	Cr	W	Mo	Fe																					
	Duceranium U	59.0	21.5	5.0	4.5	3.5	Nb, Cu, Si, Co, Mn, C	White	PB			14.1	14.5	200	48,600	335	17	89	8.5	2417-2425	1320-1330	2700	1480	1650	900	Ceramco® White	None

* IdentAlloy® Classification: HN = Noble Metal Content >= 60%, Gold Content >= 40%; N = Noble Metal Content >= 25%; PB = Noble Metal Content < 25%
Noble metals are gold (Au), palladium (Pd), platinum (Pt), rhodium (Rh), indium (In), osmium (Os) and ruthenium (Ru).