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JELENKO®

DENTAL ALLOYS

Compositions & Physical Properties

Crown & Bridge Alloys – Technical Data

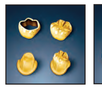
Crown & Bridge Alloys Kronen und Brücken Kroon-en Brug-legeringen Alliages pour C et B Leghe Metallo Resina Aleaciones Metal – Resina	Applications Anwendungsbereich Indicaties Applications Applicazione Indicaciones	ISO Type Typ Type Type Tipo Tipo	Color Farbe Kleur Couleur Colore Color	ADA Identalloy Classification	Metal Content % Legierungsbestandteile/Massenanteile in % Samenstelling % Composition En % Composizione % Composición %								Others Sonstige Metalle Overige Autres Altri Otros	Melting Range Schmelzintervall Smelt Interval Intervalle de Fusion Intervallo di Fusione Intervalo de Fusión		Casting Temperature Gießtemperatur Giet Temperatuur Température de Coulée Temperatura di Colata Temperatura de Colado		Density Dichte Soortelijk Densité Densità Densidad	Yield Strength Dehngrenze Rekgrens Limite d'Elasticité Limite di Elasticità Límite Elástico (.2%)			Elongation Bruchdehnung Breuk-rek Allongement Allungamento Elongación %		Modulus of Elasticity Elastizitäts Modul E-Moduul Module d'élasticité Modulo di elasticità Módulo de elasticidad	Laser Wire Laserdraht Laser Draad Fil Laser Filo Laser Hilo Laser	Solder Lote Soldeer Brasure Saldatura Soldadura	Investments Einbettmassen Inbedden Revêtement Rivestimento Revestimiento	Burn-out Temperature Vorwärmtemperatur Uitbrandtemperatuur Température Finale Cylindre Temperatura di Preriscaldo Temperatura de Precalentamiento		Softening Weichglühen Zachtgloeien Recuit Stempera Ablandamiento 15 min.		Hardening Vergüten Uitharden Trempe Tempera Endurecimiento 15 min.		
					Au	Pt	Pd	Ag	Ir	Cu	Zn	In		°F	°C	°F	°C	g/cm³	S(psi 000's)	S(MPa)	H(psi 000's)	H(MPa)	S	H	S	H	GPa			°F	°C	°F	°C	°F	°C	
SPECIAL INLAY	8, 9	1	YELLOW		83.00	–	1.00	10.00	<1	6.00	–	–	–	1760-1868	960-1020	1976	1080	16.7	25.0	172	–	–	45	–	125	–	69	LW077	18-650	G/P	1300	705	1290	700	–	–	**SPECIAL INLAY**
MODULAY®	2, 3, 8, 9	2	YELLOW		77.00	–	0.95	13.63	<1	7.87	<1	–	–	1695-1760	925-960	1905	1040	15.9	31.0	214	–	–	36	–	105	–	69	LW077	18-650	G/P	1300	705	1290	700	–	–	**MODULAY®**
FIRMILAY®	2, 3, 5, 6, 8, 9	3	YELLOW		74.50	–	3.50	11.00	<1	10.50	<1	–	–	1710-1760	930-960	1900	1040	15.5	30.0	207	40.0	276	39	19	121	182	76	LW075	18-650	G/P	1300	705	1290	700	660	350	**FIRMILAY®**
BENCHMARK III	2, 3, 5, 6, 8, 9	3/4	YELLOW		74.00	4.00	–	10.70	–	10.70	<1	–	–	1670-1760	910-960	1868	1020	15.8	50.0	345	76.0	524	44	20	180	225	108	LW075	18-615	G/P	1300	705	1290	700	600	260	**BENCHMARK III**
BENCHMARK IV	2, 3, 5, 6, 8, 10	3/4	YELLOW		70.00	5.18	–	12.00	<1	12.30	–	<1	–	1652-1760	900-960	1868	1020	15.5	51.0	350	97.0	670	40	9	195	285	97	LW075	18-650	G/P	1300	705	1290	700	600	315	**BENCHMARK IV**
JELENKO® NO. 7	2, 3, 5, 6, 8, 10	3/4	YELLOW		68.75	2.90	3.30	12.40	<1	12.35	–	<1	–	1690-1742	922-950	1850	1010	15.2	50.2	346	84.1	580	36	12	153	240	88	LW056	18-650	G/P	1300	705	1290	700	660	350	**JELENKO® NO. 7**
JEL®-4	2, 3, 5, 6, 8, 10	4	YELLOW		66.50	–	3.50	14.50	<1	14.49	1.00	–	–	1588-1733	870-945	1841	1005	14.5	56.0	386	105.0	724	35	11	180	285	103	LW075	18-650	G/P	1300	705	1290	700	600	315	**JEL®-4**
JEL®-62	2, 3, 5, 6, 8, 9	3/4	YELLOW		62.00	–	3.00	25.00	<1	9.49	<1	–	–	1652-1796	900-980	1904	1040	14.3	42.0	290	80.0	552	45	20	170	245	103	LW075	18-615	G/P	1300	705	1290	700	600	315	**JEL®-62**
LABORATORY 33®	2, 3, 5, 6, 8, 9	3/4	YELLOW		60.00	–	3.75	26.70	<1	8.75	<1	–	–	1652-1814	900-990	1922	1050	14.2	40.0	276	78.0	538	45	20	165	245	97	LW075	18-615	G/P	1300	705	1290	700	600	315	**LABORATORY 33®**
RAJAH®	2, 3, 5, 6, 8, 9	3/4	YELLOW		58.00	–	3.25	27.00	<1	10.49	1.00	<1	–	1675-1770	915-965	1905	1040	13.9	42.0	290	80.0	550	28	10	145	210	83	LW075	18-650	G/P	1300	705	1290	700	660	350	**RAJAH®**
LABORATORY 44®	2, 3, 5, 6, 8, 10	4	YELLOW		56.00	–	4.00	25.00	<1	13.74	<1	<1	–	1580-1688	860-920	1796	980	13.7	53.9	372	93.0	641	40	8	200	275	103	LW056	18-615	G/P	1300	705	1290	700	600	315	**LABORATORY 44®**
SUNCAST-D	2, 3, 5, 6, 8, 9	3/4	YELLOW		55.00	–	5.00	28.50	<1	10.65	<1	<1	–	1634-1778	890-970	1886	1030	13.7	44.9	310	90.0	621	40	13	180	260	107	LW056	18-585	G/P	1300	705	1290	700	600	315	**SUNCAST-D**
SUNCAST	2, 3, 5, 6, 8, 9	3/4	YELLOW		49.80	–	4.00	35.00	<1	10.44	<1	<1	–	1607-1760	875-960	1868	1020	13.3	43.9	303	85.0	586	43	12	175	250	114	LW056	18-585	G/P	1300	705	1290	700	600	315	**SUNCAST**
MIDAS®	2, 3, 5, 6, 8, 9	3/4	YELLOW		46.00	–	6.00	39.50	<1	7.47	1.00	–	–	1600-1725	870-940	1900	1040	12.7	50.0	345	84.0	579	30	13	135	230	83	LW075	18-585	G/P	1300	705	1290	700	660	350	**MIDAS®**
FORTICAST	2, 3, 5, 6, 8, 10	4	YELLOW		42.00	–	9.09	25.85	<1	22.05	1.00	–	–	1544-1706	840-930	1814	990	12.5	61.9	427	105.0	724	20	11	210	290	131	LW056	Alboro LF	G/P	1300	705	1290	700	600	315	**FORTICAST**
PROSPECTOR PLUS	2, 3, 5, 6, 8, 9	3	YELLOW		20.00	–	20.52	37.65	<1	–	2.90	17.80	Sn(<1); Ga(<1)	1544-1706	840-930	1814	990	10.7	32.0	221	36.2	250	9	7	185	190	64	LW033	Alboro LF	G/P	1300	705	1290	700	600	315	**PROSPECTOR PLUS**
MAESTRO®	2, 3, 5, 6, 8, 10	4	WHITE		3.00	–	30.00	50.00	<1	15.90	1.00	–	–	1760-1922	960-1050	2030	1110	10.7	61.9	427	80.0	552	18	8	220	260	103	LW033	Alboro LF	P	1300	705	1290	700	806	430	**MAESTRO®**
SUNRAY®	2, 3, 5, 6, 8, 9	3	YELLOW		2.00	–	34.90	30.00	<1	–	3.00	30.00	–	1905-2050	1040-1120	2210	1210	10.5	43.0	297	–	–	5	–	180	–	51	–	Alboro LF	P	1300	705	–	–	–	–	**SUNRAY®**
AMETHYST®	2, 3, 5, 6, 8, 10	4	WHITE		2.00	–	26.97	54.50	<1	13.51	1.00	2.00	–	1690-1760	920-960	1900	1040	10.5	61.0	421	94.5	652	10	4	190	260	90	LW033	Alboro LF	G/P	1300	705	1290	700	750	400	**AMETHYST®**
ALBACAST	2, 3, 5, 6, 8, 9	2/3	WHITE		–	–	24.98	70.00	<1	–	2.00	3.00	–	1870-2010	1020-1100	2150	1175	10.5	38.0	262	48.0	331	10	8	145	155	83	LW033	Alboro LF	P	1300	705	1290	700	750	400	**ALBACAST**
ALBA LITE®	2, 3, 5, 6, 8, 9	2/3	WHITE		–	–	19.98	75.00	<1	–	2.00	3.00	–	1695-1800	925-980	1950	1065	10.5	38.0	262	45.0	310	14	10	135	155	82	LW033	Alboro LF	G/P	1300	705	1290	700	750	400	**ALBA LITE®**

8

2, 8, 9

1, 3, 6, 8

1, 4, 8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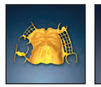
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Application / Anwendungsbereich / Indicaties / Applications / Applicazione / Indicaciones

Single units / Einflächenfüllungen / Één element / Restaurations unitaires / Corone singole / Coronas individuales	1
Single and 3/4 Crown / Einzel- und 3/4-Kronen / Één en 3/4 kroon / Couronne unitaire et 3/4 / Corone singole,corone 3/4 / Coronas individuales y coronas 3/4	2
Short Span Bridges / Brücken mit kleinen Spannweiten / Korte overkappingsbrug / Bridges de faible largeur / Ponti poco estesi / Pequenos puentes	3
Short AND Long Span Bridges / Brücken jeder Spannweite / Korte EN lange overkappingsbrug / Bridges de faible ET grande largeur / Ponti poco estesi,ponti estesi / pequenos y grandes puentes	4
Telescopic Crowns / Teleskopkronen, Geschiebe und Stege / Telescopische kronen / Couronnes télescopiques / Corone telescopiche / Coronas telescopicas	5
Veneer Crowns / Verblendkronen / Verniskronen / Couronnes céramiques / Veneers / Veneers	6
Implant Cases / Implantate / Implantatiegevallen / Cas d'implantologie / Impianti / Implantes	7
Inlays / Inlays / Inlays / Incrustations / Inlays / Incrustaciones	8
Onlays / Onlays / Onlays / Incrustations à recouvrement / Onlays / Onlays	9
Partial Denture / Modellgussprothesen / Partiële prothese / Prothèse partielle / Scheletrati / Esqueléticos	10
Recommended for high expansion, low fusing porcelains. / Empfohlen für hochexpandierende niedrigschmelzende Keramiken. / Aanbevolen voor laagsmeltende porselein soorten met een hoog uitzettings coefficient. / Recommandé pour céramique basse fusion avec fort coefficient d'expanison. / Indicato per ceramiche a basso punto di fusione e alta espansione termica (CET). / Recomendado para aleaciones de alta expansión y baja temperatura de fusión.	11

Foils

Foils	Thickness	
Platinum Foil	0.001"	0.0254 mm
PVS Platinum	0.0008"	0.02032 mm
Non-ox Palladium Foil	0.001"	0.0254 mm

G = Gypsum Based, Gipsgebunden, Gips-Basis, Base Gypse, Base Gessosa, A Base de Yeso
P = Phosphate Bonded, Phosphatgebunden Fosfaat-Gebonden, Liant Phosphaté, Legame Fosfatico, Unión de Fosfato
P1 = Phosphate Bonded (Carbon Free), Phosphatgebunden (Graphitfrei), Fosfaat-Gebonden (Grafietvrij), Liant Phosphaté (Exempt de Graphite), Legame Fosfatico (Senza Grafite), Unión de Fosfato (Sin Grafito)
N = No, Nein, Nee, Non, No, No
O = Optional, Wahlweise, Naar Keuze, Facultatif, Facoltativo, Opcional
Y = Yes, Ja, Ja, Oui, Sì, Sí
S = Soft, Weich, Zacht, Mou, Molle, Suave
H = Hard, Ausgehärtet, Hard, Dur, Duro, Duro
X = >1%
V = Vacuum, Vakuum, Vacuum, Vacuum, Con Vuoto, Vacío

1 MPa = 1 N/mm² = 145 psi
1 GPa = 1000 MPa

CE 0086

WE OFFER REFINING SERVICES

Classified under the ADA and Identalloy Classification System for Dental Alloys

- **Noble Metal Content ≥ 25%** (gold + platinum group*)
- **Noble Metal Content ≥ 60%** (gold+ platinum group*) and gold ≥ 40%
- **Noble Metal Content < 25%** (gold + platinum group*)
- **Noble metal content (Au + Pt + Pd) < 25%**

* metals of the platinum group are platinum, palladium, rhodium, iridium, osmium and ruthenium

Jelenko® Dental Alloys - Technical Data

Multipurpose Alloys / Multiindikative Legierungen / Universeel Toepasbare Legering / Alliages à Usage Universel / Leghe Muti Uso / Aleaciones Multi-Funcionales	Applications / Anwendungsbereich / Indicaties / Applications / Applicazione / Indicaciones	ISO Type / Typ / Type / Type / Tipo / Tipo	Color / Farbe / Kleur / Couleur / Colore / Color	ADA Identalloy Classification	Metal Content % / Legierungsbestandteile/Massenanteile in % / Samenstelling % / Composition En % / Composizione % / Composición % — Au	Pt	Pd	Ag	Ir	Cu	Zn	Sn	In	Ga	Others / Sonstige Metalle / Overige / Autres / Altri / Otros	Density / Dichte / Soortelijk / Densité / Densità / Densidad g/cm³	Melting Range / Schmelzintervall / Smelt Interval / Intervalle de Fusion / Intervallo di Fusione / Intervalo de Fusión °F	°C	Casting Temperature / Gießtemperatur / Giet Temperatuur / Température de Coulée / Temperatura di Colata / Temperatura de Colado °F	°C	Yield Strength / Dehngrenze / Rekgrens / Limite d'Élasticité / Limite di Elasticità / Límite Elástico (.2%) A.F. (psi 000's)	A.F. (MPa)	H(psi 000's)	H(MPa)	Elongation / Bruchdehnung / Breuk-rek / Allongement / Allungamento / Elongación % A.F.	H	Vickers Hardness / Vickers-Härte / Vickers Hardheid / Dureté Vickers / Durezza Vickers / Dureza Vickers A.F.	H	Modulus of Elasticity / Elastizitäts Modul / E-Moduul / Module d'élaticité / Modulo di elasticità / Módulo de elasticidad GPa	Laser Wires / Laserdraht / Laser Draad / Fil Laser / Filo Laser / Hilo Laser	Solder / Lote / Soldeer / Brasure / Saldatura / Soldadura — Pre-Solder / Lote (Vor) / Voorsoldeer / Primaire / Presaldatura / Presoldadura	Post-Solder / Lote (Nach) / Nasoldeer / Secondaire / Postsaldatura / Postsoldadura	Investments / Einbettmassen / Inbedden / Revêtement / Rivestimento / Revestimiento	Burn-out Temperature / Vorwärmtemperatur / Uitbrandtemperatuur / Température Finale Cylindre / Temperatura di Preriscaldo / Temperatura de Precalentamiento °F	°C	Oxidation / Oxydierung / Oxydatie / Oxydation / Ossidazione / Oxidación °F	°C	Min.	Sandblast / Sandstrahlen / Afstralen / Sablage / Sabbiatura / Limpiar con Chorro de Arena	Hardening / Vergüten / Uitharden / Trempe / Tempera / Endurecimiento °C	Min.	Co-Eff. of Expansion / WAK-Wert / Thermisch Uitzettings Coëfficient / Coefficient Expansion Thermique / Coefficiente Espansione / Coeficiente de Expansión µm/m-K		Multipurpose Alloys / Multiindikative Legierungen / Universeel Toepasbare Legering / Alliages à Usage Universel / Leghe Muti Uso / Aleaciones Multi-Funcionales
ALLROUND® BIO 738	1, 2, 4, 5, 11	4	YELLOW	HN	73.80	9.00	–	13.60	< 1	–	2.00	–	< 1	–	Ta (< 1); Rh (< 1)	16.8	1850-1960	1010-1070	2210	1210	65.3	450	72.5	500	12	8	190	230	85	LWS75	Allround Pre	Allround Post	P	1470	800	1200-1580	650-860	3	N	550	15	16.0	16.2	ALLROUND® BIO 738
JELNORM LF	1, 2, 4, 5, 11	4	YELLOW	HN	73.80	9.00	–	9.20	< 1	4.40	2.00	–	1.50	–	–	16.7	1652-1815	900-990	2260	1125	49.3	340	72.5	500	14	6	200	230	99	LWS72	Allround Pre	Allround Post	G/P	1290	700	1200-1435	650-780	5	Y	450	15	16.7	16.8	JELNORM LF
ALLROUND® 55 LF	1, 2, 3, 5, 11	4	YELLOW	HN	55.90	–	8.50	31.00	< 1	–	1.60	–	2.80	–	Re (< 1)	13.9	1800-1975	984-1078	2075	1135	61.9	427	63.9	441	6	5	225	240	97	LWS55	Allround Pre	Allround Post	G/P	1300	705	1200-1560	650-850	15	Y	600	15	16.8	17.1	ALLROUND® 55 LF
ALLROUND® 38	1, 2, 3, 5, 11	4	PALE YELLOW	NOBLE	38.00	–	17.00	36.00	< 1	–	–	–	8.90	–	–	13.1	1870-1965	1020-1075	2237	1225	95.7	660	–	–	3	–	240	–	100	LWS73	Allround Pre	Allround Post	P	1470	800	1200-1470	650-800	5	Y	–	–	16.9	17.3	ALLROUND® 38
ALLROUND® E	1, 2, 3, 5, 11	4	PALE YELLOW	NOBLE	32.00	–	19.90	35.50	< 1	–	–	–	12.50	–	–	12.3	1795-1920	980-1050	2280	1250	53.9	372	62.3	430	5	5	205	220	100	LWS73	Allround Pre	Allround Post	P	1470	800	1200-1470	650-800	5	Y	400	15	17.1	17.3	ALLROUND® E
ALLROUND® 37	1, 2, 3, 5, 11	4	WHITE	NOBLE	–	–	36.90	56.00	< 1	–	3.00	2.00	2.00	–	–	10.9	1940-2100	1060-1150	2370	1300	60.9	420	74.0	510	10	5	225	230	100	LWT84	Allround Pre	Allround Post	P	1470	800	1200-1470	650-800	5	Y	550	15	16.6	16.8	ALLROUND® 37
Porcelain Alloys / Aufbrennlegierungen / Porselein Opbaklegeringen / Alliages Céramique / Leghe per Metallo Ceramica / Aleaciones para Cerámica																																												**Porcelain Alloys / Aufbrennlegierungen / Porselein Opbaklegeringen / Alliages Céramique / Leghe per Metallo Ceramica / Aleaciones para Cerámica**
JEL®-BIOS 99+	1	0	RICH YELLOW	HN	99.30	0.10	–	–	–	–	< 1	–	< 1	–	Mn (< 1); Ru (< 1)	19.1	1931-1998	1055-1092	2106	1152	6.4	44	–	–	38	–	57	–	41	LWT99	–	–	G/P	1300	705	1200-1750	650-954	5	N	450	15	15.2	15.4	JEL®-BIOS 99+
JEL®-BIOS 90	1, 2, 3	3	RICH YELLOW	HN	90.00	7.40	–	1.00	–	–	< 1	–	< 1	–	Fe (< 1); Ta (< 1); Ru (< 1)	18.9	1931-2091	1055-1144	2199	1204	50.2	346	–	–	9	–	153	–	77	LWT88	PdF Pre	18 - 650	P	1300	705	1200-1750	650-954	15	Y	450	15	14.7	14.9	JEL®-BIOS 90
DIAMOND	1, 2, 4, 5, 7	4	RICH YELLOW	HN	88.40	9.50	–	–	< 1	–	< 1	–	< 1	–	Mn (1.00)	18.9	1920-2120	1050-1160	2300	1260	69.9	482	74.0	510	8	5	190	210	90	LWT88	PdF Pre	18-650, 22-750	P	1435	780	1200-1800	650-980	0	N	430	30	14.5	14.8	DIAMOND
JELENKO® O	1, 2, 4, 5	4	YELLOW	HN	87.42	4.50	5.90	1.00	< 1	–	–	< 1	< 1	–	Fe (< 1)	18.5	2100-2155	1150-1180	2300	1260	58.2	401	65.0	448	9	5	150	185	97	LWT87	Silver Free	18 - 585	P	1450	790	1200-1800	650-980	0	N	500	20	14.5	14.7	JELENKO® O
BENCHMARK C	1, 2, 3	3	YELLOW	HN	87.25	11.25	–	–	< 1	–	–	< 1	< 1	–	Fe (< 1)	19.1	1922-2102	1050-1150	2210	1210	45.0	310	50.8	350	11	10	140	145	69	LWT88	Silver Free	18 - 650	P	1300	705	1200-1750	650-954	10	N	450	15	14.5	14.7	BENCHMARK C
JEL®-BIOS 86	1, 2, 4, 5	4	YELLOW	HN	86.50	10.40	–	–	< 1	–	1.50	–	< 1	–	Mn (< 1); Rh (< 1); Ta (< 1)	18.6	1905-2065	1040-1130	2335	1280	79.8	550	96.4	665	8	5	220	250	94	LWT86❖	Silver Free	22 - 750	P	1470	800	1200-1740	650-950	3	N	450	15	14.3	14.5	JEL®-BIOS 86®
JEL BIOS-10®	1, 2, 4, 5	4	YELLOW	HN	86.20	11.50	–	–	–	–	1.50	–	–	–	Mn (< 1); Ta (< 1); Ru (< 1)	18.6	1905-2120	1040-1160	2335	1280	84.4	582	–	–	10	–	220	–	90	LWT86	PdF Pre	18 - 650	P	1470	800	1200-1740	650-950	3	N	–	–	14.4	14.6	JEL BIOS-10®
TITAN®	1, 2, 4, 5	4	YELLOW	HN	86.09	8.50	2.60	–	< 1	–	–	–	1.40	–	Fe (< 1); Ta (< 1)	18.5	1920-2095	1050-1145	2190	1200	66.0	455	71.8	495	13	10	180	230	92	LWT84	Silver Free	22 - 750	P	1455	790	1200-1740	650-950	0	N	540	15	14.4	14.7	TITAN®
HP 3®	1, 2, 4	4	YELLOW	HN	86.00	10.00	1.95	–	< 1	–	–	–	2.00	–	–	18.7	1940-2210	1060-1210	2318	1270	55.0	379	65.0	448	6	6	140	165	83	LWT86	Silver Free	18 - 650	P	1300	705	1200-1750	650-954	10	Y	450	15	14.1	14.3	HP 3®
JEL®-BIOS 18	1, 2, 4, 5, 7	4	YELLOW	HN	78.10	18.60	–	–	< 1	–	1.60	–	–	–	Fe (< 1); Rh (< 1); Ru (< 1)	18.9	1958-2138	1070-1170	2246	1230	65.0	448	76.1	525	4	3	210	220	90	LWT88	PdF Pre	18 - 650	P	1300	705	1200-1750	650-954	10	Y	500	15	13.9	14.1	JEL®-BIOS 18
JEL®-96	1, 2, 4, 5, 7	4	WHITE	HN	78.00	6.00	12.00	1.20	< 1	–	–	< 1	< 1	–	Fe (1.00)	17.2	2138-2372	1170-1300	2480	1360	79.9	551	95.0	655	7	4	240	255	103	LWT77	Olympia Pre	Alboro LF	P	1300	705	1200-1750	650-954	No	Y	450	15	14.3	14.5	JEL®-96
METEOR®	1, 2, 4, 5	4	PALE YELLOW	HN	76.60	9.90	9.30	1.20	< 1	< 1	–	< 1	1.70	–	Fe (< 1)	17.6	2100-2245	1150-1230	2515	1380	76.9	530	91.4	630	12	11	240	245	101	LWT77❖	Jel "O" Special	18 - 650	P	1505	820	1200-1740	650-950	0	N	550	60	14.1	14.4	METEOR®
JEL®-BURST	1, 2, 3, 5, 7	4	YELLOW	HN	75.10	–	12.08	10.00	< 1	–	–	1.00	1.80	–	–	16.2	2145-2200	1175-1205	2355	1290	61.0	421	73.2	505	12	8	200	240	95	LWT65	Jel "O" Special	18 - 585	P	1500	815	1200-1850	650-1010	0	N	600	30	14.4	14.7	JEL®-BURST
JEL®-0 75	1, 2, 4, 5, 7	4	YELLOW	HN	75.00	–	17.90	1.00	< 1	–	–	1.00	5.00	–	–	15.9	2030-2300	1110-1260	2408	1320	84.0	579	85.0	586	5	4	245	250	103	LWT77	Jel "O" Special	18 - 585	P	1300	705	1200-1900	650-1040	0	N	600	15	14.6	14.9	JEL®-O 75
JELBOND Y73	1, 2, 4, 5, 7	4	YELLOW	HN	73.80	8.50	5.40	8.98	–	–	–	–	1.90	–	Fe (< 1); Li (< 1); Mn (< 1); Nb (< 1); Re (< 1); Ru (< 1); Ta (< 1)	16.7	1920-2140	1050-1170	2345	1285	56.0	386	70.0	483	15	10	215	225	104	LWT65	Jel "O" Special	18 - 615	P	1455	790	1200-1800	650-980	0	N	600	10	14.3	14.5	JELBOND Y73
ARTISAN®	1, 2, 4, 5, 7	4	WHITE	HN	69.00	–	18.40	9.00	< 1	–	–	1.50	2.00	–	–	15.5	2100-2280	1150-1250	2390	1310	75.0	517	–	–	6	–	230	–	107	LWT65	Jelenko O Pre	18 - 585	P	1500	815	1200-1850	650-1010	0	N	–	–	14.4	14.6	ARTISAN®
CAMEO®	1, 2, 4, 5, 7	4	WHITE	HN	52.50	–	26.98	16.00	–	–	–	2.00	2.50	–	Ru (< 1)	14.2	2200-2300	1205-1260	2455	1345	78.3	540	85.0	586	12	10	200	225	118	LWT52❖	Olympia Pre	Alboro LF	P	1500	815	1200-1850	650-1010	0	N	650	15	14.2	14.4	CAMEO®
JELFINE 52®	1, 2, 4, 5, 7	4	WHITE	HN	52.00	–	37.70	–	–	–	< 1	–	8.50	1.40	Re (< 1); Ru (< 1)	13.7	2201-2444	1205-1340	2552	1400	75.0	517	–	–	16	–	260	–	124	LWT52SF	Olympia Pre	22 - 750	P1	1300	705	1200-1900	650-1040	0	Y	500	15	14.1	14.7	JELFINE 52®
OLYMPIA®	1, 2, 4, 5, 7	4	WHITE	HN	51.50	–	38.40	–	–	–	–	–	8.50	1.50	Ru (< 1)	14.4	2155-2370	1180-1300	2640	1450	79.7	550	–	–	30	–	250	–	124	LWT52SF	Olympia Pre	22 - 750	P1	1500	815	1200-1850	650-1010	0	N	–	–	13.8	14.1	OLYMPIA®
COLLEGIATE	1, 4, 5, 7	4	WHITE	HN	50.00	–	36.00	5.00	–	–	–	–	7.40	1.50	Ru (< 1); Re (< 1)	13.6	2192-2390	1200-1310	2672	1460	75.0	517	–	–	18	–	250	–	131	LWT52SF	Olympia Pre	22 - 750	P1	1500	815	1200-1850	650-1010	0	N	–	–	14.1	14.4	COLLEGIATE
PTM-45®	1, 2, 4, 5, 7	4	WHITE	HN	45.00	–	40.00	4.90	–	–	–	–	8.50	1.50	Ru (< 1)	13.5	2175-2355	1190-1290	2500	1370	77.0	531	82.9	572	24	20	220	240	114	LWT52SF	Olympia Pre	22 - 750	P1	1500	815	1200-1850	650-1010	0	N	550	15	14.1	14.3	PTM-45®
EUREKA PLUS	1, 4, 5, 7	4	WHITE	HN	40.00	–	37.40	15.00	< 1	–	–	–	6.00	1.51	–	13.0	2183-2390	1195-1310	2498	1370	85.0	586	–	–	17	–	265	–	124	LWT52	Olympia Pre	22 - 750	P1	1300	705	1200-1900	650-1040	0	Y	–	–	14.2	14.5	EUREKA PLUS
SAPPHIRE	1, 2, 4, 5, 7	4	WHITE	HN	40.00	–	39.40	10.00	–	–	–	< 1	8.80	1.40	Ru (< 1)	12.8	2050-2300	1120-1260	2550	1400	78.3	540	79.8	550	15	9	260	290	125	LWT52	Cameo Pre	Alboro LF	P1	1500	815	1200-1850	650-1010	0	N	600	15	14.1	14.4	SAPPHIRE
OLYMPIA® II	1, 2, 4, 5, 7	4	WHITE	NOBLE	35.00	–	56.50	–	–	–	< 1	3.00	–	4.80	Ru (< 1)	13.9	2250-2350	1232-1288	2500	1371	73.9	510	82.9	572	25	20	245	245	124	LWT52SF	Olympia Pre	Alboro LF	P1	1500	815	1200-1900	650-1040	0	N	600	15	14.0	14.2	OLYMPIA® II
JEL® 15	1, 2, 4, 5, 7	4	WHITE	NOBLE	15.00	–	52.20	21.50	–	–	–	4.00	6.00	1.00	Ru (< 1)	11.6	2120-2355	1160-1290	2550	1400	83.4	575	98.7	681	18	10	240	290	130	LWL58	Olympia Pre	Alboro LF	P	1500	815	1200-1850	650-1010	5	Y	600	15	14.5	14.7	JEL® 15
ACCU-STAR	1, 2, 4, 5, 7	4	WHITE	NOBLE	6.00	–	75.00	6.50	–	–	–	–	6.00	6.00	Ru (< 1)	11.4	2085-2265	1140-1240	2535	1390	81.9	565	87.0	600	32	30	250	265	111	LWL75❖	Cameo Pre	Alboro LF	P1	1500	815	1200-1850	650-1010	5	Y	600	30	14.3	14.5	ACCU-STAR
LEGACY®	1, 2, 4, 5, 7	4	WHITE	NOBLE	2.00	–	85.10	1.20	–	–	–	–	1.20	10.00	Ru (< 1)	11.4	2020-2355	1105-1290	2550	1400	91.9	634	–	–	18	–	265	–	117	LWL58	Silver Free	Alboro LF	P	1500	815	1200-1850	650-1010	5	Y	–	–	14.0	14.2	LEGACY®
MICRO-STAR	1, 2, 4, 5, 7	4	WHITE	NOBLE	2.00	–	79.00	–	–	–	–	8.40	–	5.00	Co (5.00); Ru (< 1)	11.3	2085-2282	1140-1250	2455	1345	80.0	552	–	–	20	–	265	–	124	LWT80	Olympia Pre	Alboro LF	P1	1500	815	1200-1850	650-1010	5	Y	–	–	14.1	14.3	MICRO-STAR
FREEDOM PLUS	1, 2, 4, 5, 7	4	WHITE	NOBLE	2.00	–	78.40	–	–	8.00	–	–	6.00	5.01	Ru (< 1)	10.8	2156-2462	1180-1350	2570	1410	81.9	565	–	–	30	–	265	–	138	LWT80	Olympia Pre	Alboro LF	P1	1500	815	1200-1850	650-1010	0	Y	–	–	13.6	14.0	FREEDOM PLUS
LIBERTY	1, 2, 4, 7	4	WHITE	NOBLE	2.00	–	75.90	–	–	10.00	–	6.00	–	5.50	Ru (< 1)	10.7	2084-2372	1140-1300	2500	1370	99.9	689	–	–	20	–	345	–	138	LWT80	Olympia Pre	Alboro LF	P1	1500	815	1200-1850	650-1010	0	Y	–	–	13.8	14.1	LIBERTY
FREEDOM	1, 2, 4, 5, 7	4	WHITE	NOBLE	–	–	75.89	–	–	10.00	–	–	7.00	6.51	Ru (< 1)	10.5	2048-2318	1120-1270	2426	1330	113.0	779	–	–	7	–	365	–	131	LWT80	Olympia Pre	Alboro LF	P1	1500	815	1200-1850	650-1010	0	Y	–	–	13.8	14.3	FREEDOM
JELSTAR® 71	1, 2, 4, 5, 7	4	WHITE	NOBLE	–	–	70.90	10.00	–	–	5.00	5.30	8.00	< 1	Ru (< 1)	10.6	2165-2345	1185-1285	2445	1340	84.8	585	–	–	10	–	300	–	125	LWL75	Cameo Pre	Alboro LF	P1	1500	815	1200-1850	650-1010	5	Y	–	–	14.2	14.5	JELSTAR® 71
GOLDSTAR	1, 2, 4, 5, 7	4	WHITE	NOBLE	1.70	–	59.90	26.30	–	–	2.00	5.00	5.00	–	Ru (< 1)	11.5	2230-2365	1220-1295	2500	1370	78.0	538	–	–	18	–	240	–	137	LWL60	Olympia Pre	Alboro LF	P	1500	815	1200-1900	650-1040	10	Y	–	–	14.5	14.7	GOLDSTAR
JELSTAR®	1, 2, 4, 5, 7	4	WHITE	NOBLE	–	–	59.90	28.00	–	–	–	6.00	6.00	–	Ru (< 1)	11.4	2245-2380	1230-1305	2500	1370	67.0	462	–	–	20	–	190	–	137	LWL60	Olympia Pre	Alboro LF	P	1500	815	1200-1900	650-1040	10	O	–	–	14.6	14.8	JELSTAR®
SUPER-STAR	1, 2, 4, 5, 7	4	WHITE	NOBLE	–	–	59.79	28.10	–	–	–	5.00	6.00	< 1	Re (< 1); Ru (< 1)	10.7	2175-2408	1190-1320	2516	1380	95.0	655	95.8	661	15	8	285	295	131	LWL60	Olympia Pre	Alboro LF	P	1500	815	1200-1900	650-1040	0	Y	600	15	14.5	14.8	SUPER-STAR
COMET®	1, 2, 4, 5, 7	4	WHITE	NOBLE	–	–	57.90	30.00	–	–	2.00	6.00	4.00	–	Ru (< 1)	11.3	2250-2335	1230-1280	2605	1430	72.5	500	80.0	552	20	14	250	260	129	LWL58❖	Cameo Pre	Alboro LF	P	1505	820	1200-1900	650-1040	10	O	550	15	14.7	14.9	COMET®
JEL® 55	1, 2, 4, 5, 7	4	WHITE	NOBLE	–	–	55.00	34.00	–	–	1.00	3.00	6.00	< 1	Ru (< 1)	11.1	2140-2310	1170-1265	2500	1370	58.0	400	105.0	724	38	10	170	330	125	LWL58	Olympia Pre	Alboro LF	P	1500	815	1200-1900	650-1040	10	O	660	15	14.8	15.0	JEL® 55
JEL®-5	1, 2, 4, 5, 7	4	WHITE	NOBLE	–	–	53.41	38.90	< 1	–	–	7.00	–	< 1	Re (< 1)	10.9	2174-2372	1190-1300	2480	1360	66.0	455	71.1	490	25	12	220	225	116	LWL58	Olympia Pre	Alboro LF	P	1500	815	1200-1900	650-1040	0	Y	600	15	15.1	15.4	JEL®-5
MEDALIST	1, 2, 4, 5, 7	4	WHITE	NOBLE	–	–	49.50	40.00	–	–	–	–	9.00	1.00	Ru (< 1)	10.9	2100-2275	1150-1245	2455	1345	95.0	655	–	–	6	–	295	–	131	LWL58	Olympia Pre	Alboro LF	P	1500	815	1200-1900	650-1040	10	O	–	–	15.3	15.5	MEDALIST
JELCROWN NF	1, 2, 4, 5, 7	4	WHITE	NOBLE	–	–	25.00	–	–	42.75	–	–	–	–	B (< 1); Cr (20.00); Mo (12.00)	9.2	2280-2350	1250-1290	2550	1400	90.0	620	–	–	4	–	335	–	192	LWNPCO	Co/Cr Pre	–	P	1600	870	1200-1850	650-1010	0	Y	–	–	14.4	14.8	JELCROWN NF
NOBLEBOND®	1, 2, 4, 5, 7	4	WHITE	NOBLE	–	–	–	–	–	–	–	–	–	11.00	Ru (25.00); Co (40.00);Cr (24.00); B (<1)	9.0	2230-2590	1220-1420	2910	1600	79.8	550	–	–	3	–	500	–	250	LWNPCO	Co/Cr Pre	–	P1	1600	870	1200-1850	650-1010	0	Y	–	–	13.8	14.3	NOBLEBOND®

Non-Precious Alloys / Nichtedelmetall Legierungen / Nict Edelmetaallegeringen / Alliages non Précieux / Leghe non Preziose / Aleaciones no Preciosas

Non-Precious Alloys	Applications	ISO Type	Color	ADA	Ni	Cr	Mo	Be	Co	Al	Si	Fe	Nb	Ta	Others	Density g/cm³	Melting Range °F	°C	Casting Temperature °F	°C	Yield Strength A.F. (psi 000's)	A.F. (MPa)	Elongation(%) A.F.	Vickers Hardness A.F.	GPa	Laser Wires	Pre-Solder	Post-Solder	Investments	Burn-out °F	°C	Oxidation °F	°C	Min.	Sandblast	Hardening °C	Min.	Co-Eff. of Expansion µm/m-K		Non-Precious Alloys
JELBOND C	1, 2, 4	4	WHITE	PB	76.00	14.00	6.00	1.80	–	2.00	< 1	< 1	–	–	C (< 1)	7.8	2245-2355	1230-1290	2500	1370	80.0	552	12	240	192	LWNPNI	Ni NP Pre Solder	Alboro LF	P	1600	870	1200-1800	650-980	–	V, N	–	–	14.0	14.4	JELBOND C
JELBOND B	1, 2, 4	4	WHITE	PB	77.00	14.00	4.70	1.80	–	2.00	< 1	< 1	–	–	C (< 1); Mn (< 1)	7.8	2120-2335	1160-1280	2500	1370	91.4	630	10	370	207	LWNPNI	Ni NP Pre Solder	Alboro LF	P	1600	870	1200-1800	650-980	–	V, N	–	–	14.5	14.7	JELBOND B
JELBOND CV	1, 2, 4	4	WHITE	PB	72.00	15.00	9.00	1.80	–	2.00	< 1	< 1	–	–	C (< 1)	7.8	2200-2300	1205-1260	2500	1370	80.0	550	9	200	192	LWNPNI	Ni NP Pre Solder	Alboro LF	P	1600	870	1200-1800	650-980	–	V, N	–	–	13.6	14.0	JELBOND CV
JELBOND BF	1, 2, 4	4	WHITE	PB	54.00	22.00	9.00	–	< 1	< 1	< 1	4.00	4.00	4.00	C (< 1); Mn (< 1)	8.6	2230-2245	1220-1230	2500	1370	52.2	360	6	240	160	LWNPNI	Ni NP Pre Solder	Alboro LF	P	1600	870	1200-1800	650-980	–	V,O	–	–	14.1	14.4	JELBOND BF
JELBOND SUPER	1, 2, 4	4	WHITE	PB	61.20	25.80	11.00	–	–	< 1	1.50	< 1	–	–	C (< 1); Mn (X)	8.2	2300-2460	1260-1350	2570	1410	52.6	210	23	210	281	LWNPNI	Ni NP Pre Solder	Alboro LF	P	1600	870	1200-1800	650-980	–	V,O	–	–	14.0	14.1	JELBOND SUPER
JELBOND PREMIER	1, 2, 4	4	WHITE	PB	–	31.50	5.00	–	59.50	–	2.00	< 1	–	–	C (< 1); Mn (< 1)	8.8	2145-2460	1175-1350	2700	1480	103.0	710	5	430	280	LWNPCO	Co NP Pre Solder	Alboro LF	P	1600	870	1200-1800	650-980	–	V,O	–	–	14.3	14.8	JELBOND PREMIER
GENESIS II™	1, 2, 4, 5, 7	4	WHITE	PB	–	27.50	–	–	52.60	–	< 1	1.00	< 1	< 1	Cu (1.00); W (12.00); Ga (2.50); Ru (2.50)	8.8	2417-2552	1325-1400	2790	1530	75.0	517	15	325	172	LWNPCO	Co NP Pre Solder	Alboro LF	P	1650	899	1300-1900	704-1038	2	V,O	–	–	14.4	14.6	GENESIS II™
SUPRACHROME®+	10	5/PARTIAL	WHITE	PB	–	30.00	5.00	–	63.00	–	< 1	–	–	–	C (< 1); Mn (< 1)	8.3	2370-2450	1300-1370	2750	1510	108.0	745	13	390	200	LWNPCO	WELDING RODS	ELECTRO WELD	PARTIAL	2000	1095	–	–	–	–	–	–	–	–	SUPRACHROME®+
JELBOND PARTIAL INGOT/SHOT	10	5/PARTIAL	WHITE	PB	–	28.00	6.00	–	64.00	–	< 1	< 1	–	–	C (< 1); Mn (< 1)	8.3	2370-2500	1300-1370	2750	1510	80.0	552	10	380	228	LWNPCO	WELDING RODS	ELECTRO WELD	PARTIAL	2000	1095	–	–	–	–	–	–	–	–	JELBOND PARTIAL INGOT/SHOT
JD®	10	5/PARTIAL	WHITE	PB	–	28.50	6.00	–	63.00	–	< 1	< 1	–	–	C (< 1); Mn (< 1); W (< 1)	8.3	2534-2570	1390-1410	2705	1485	89.9	620	5	290	207	LWNPCO	WELDING RODS	ELECTRO WELD	PARTIAL	1740	950	–	–	–	–	–	–	–	–	JD®

Established in 1912, Jelenko® has maintained a remarkable reputation as a high quality, dependable alloy company. Our continued research and development for over 90 years, ensures that our alloys meet the needs for all dental applications.

Jelenko® alloys are formulated for porcelain-to-metal, crown and bridge, and veneers with composite applications. The microfine grain structure of our alloys ensures greater consistency from melt-to-melt.

At Jelenko®, we know that providing world-class service and support is as important as delivering reliable, top-quality alloys. Our technical staff is always ready to answer your questions about alloy use and performance. We do what it takes to deliver our products on time, every time.

Group I - Post solders and solders for crown & bridge alloys

Solders	Color	Au (%)	Pt (%)	Pd (%)	Ag (%)	Cu (%)	Zn (%)	Balance	Melting Range (ºF)	(ºC)
22 - 750	Yellow	75.00	–	–	10.92	9.32	3.9	Sn, Ir, B	1463 - 1769	795 - 965
18 - 650	Yellow	65.00	–	–	14.00	14.69	5.15	Sn (1.10), Ir, B	1380 - 1480	750 - 805
18 - 615	Yellow	61.50	–	–	17.50	14.44	5.00	Sn (1.50), Ir, B	1365 - 1480	740 - 805
18 - 585	Yellow	58.50	–	–	21.00	14.44	4.65	Sn (1.35), Ir, B	1375 - 1465	745 - 795
14 - 437	Yellow	43.70	–	–	24.65	21.09	8.80	Sn (1.75), Ir	1292 - 1418	700 - 770

Group II - Pre and post special solders for porcelain-to-metal alloys

Solders	Color	Au (%)	Pt (%)	Pd (%)	Ag (%)	Cu (%)	Zn (%)	Balance	Melting Range (ºF)	(ºC)
Silver Free	Yellow	84.00	–	10.00	–	–	6.00	–	1762 - 1981	961 - 1083
Jelenko® O Pre	Yellow	80.00	–	7.95	10.00	–	< 1	In, Sn, Ir	1940 - 1976	1060 - 1080
Alboro HF	Yellow	80.00	0.09	–	–	1.00	8.00	Ni (10.90), Ir	1600 - 1675	870 - 915
PdF Pre	Yellow	79.80	2.05	–	16.85	–	< 1	In, Ga, Ir	1868 - 1958	1020 - 1070
Allround Pre	Yellow	76.00	3.00	–	10.00	5.90	5.00	Ir	1562 - 1652	850 - 900
Allround Post	Yellow	72.00	0.90	–	10.00	3.00	12.00	In (2.00), Ir	1193 - 1346	645 - 730
Olympia® Pre	White	70.00	–	10.60	18.00	< 1	< 1	In, Sn, Ir	2050 - 2110	1120 - 1155
Alboro LF	Yellow	59.50	–	1.00	24.50	–	15.00	–	1292 - 1400	700 - 760
Jel® O Special	Yellow	59.00	–	6.95	30.00	2.00	–	In (2.00), Ir	1850 - 2012	1010 - 1100
Cameo Pre	White	51.00	–	12.95	34.00	–	1.00	Sn (1.00), Ir	1958 - 2147	1070 - 1175

Electro Weld thickness is available for Alboro HF & LF