



LEGIERUNGEN, ALLIAGES, LEGHE, ALLOYS

Aufbrennlegierungen | Alliages céramo-métallique | Leghe per la tecnica ceramo metallica | Alloys for ceramic
Universallegierungen | Alliages universel | Leghe universale | Multi-purpose alloys
Goldgusslegierungen | Alliages conventionnel | Leghe convenzionale | Gold alloys
Nichtedelmetalllegierungen | Alliages non précieux | Leghe non prezioso | Non precious metals



DENTALLEGIERUNGEN | ALLIAGES DENTAIRE

Legierung Alliage Lega Alloy	Bestell-Nr. No de comm. No di ordin. Order No.	Zusammensetzung Composition Composizione Composition										Sonstige autre altro other	Dichte Densité Densità Density	Farbe Couleur Colore Colour	WAK CET CE CTE	25-500°C µm/m•K	20-600°C µm/m•K	Schmelzintervall Intervalle de fusion Intervallo di fusione Melting range	Vorwärmtemperatur Préchauffage Preriscaldamento Preheating	Giestemperatur Température de coulée Temperatura di colata Casting temperature	Härte Dureté Durezza Hardness
		Au %	Pt %	Ag %	Pd %	Sn %	Zn %	In %	Ir %	Ga %	Cu %										
Aufbrennlegierungen Alliages céramo-métallique Leghe per la tecnica ceramo metallica Alloys for ceramic																					
Unorex 11	2050101	78.50	10.00		7.80				3.50	0.20				17.6	w	13.9	14.1	1150-1230	900	1390	200
Unorex 12	2050102	77.80	9.50	1.30	9.00				x	x			x	17.7	w	13.9	14.1	1160-1260	900	1410	185
Unorex 13	2050103	84.20	7.70		5.00				2.40	x			x	18.3	h	14.3	14.5	1100-1190	900	1330	200
Unorex 16	2050106	75.00		1.50	18.50	2.00		x	2.00	x			x	16.3	w	14.0	14.3	1125-1240	900	1390	190
Unorex Bio 3	2050111	86.20	11.50					1.50					x	19.0	g	14.3	14.6	1050-1130	850	1280	185
Unorex Bio 4	2050112	82.00	15.60					1.60	0.50	x			x	19.0	g	14.2	14.4	1050-1160	800	1310	220
Unorex Bio 5	2050115	77.70	19.50					2.00		x			x	19.1	h	13.7	14.0	1050-1160	900	1310	195
Unorex 31	2050201	51.50			37.90				8.50		2.00		x	14.5	w	13.9	14.0	1150-1300	900	1430	210
Unorex 33	2050203	44.60		5.00	39.30	x			8.50		1.40	x	x	13.7	w	13.9	14.3	1230-1280	900	1430	240
Unorex 34	2050803	67.40		4.90	22.00				5.00		0.50		x	15.8	w	14.2	14.6	1110-1240	900	1390	210
Unorex 35	2050205	15.00		20.5	52.20	5.00			6.00		1.00		x	11.6	w	14.5	14.7	1150-1260	850	1370	240
Unorex 36	2050206	35.00			56.50	3.00	0.40				4.80		x	13.9	w	13.9	14.2	1230-1290	850	1440	220
Unorex 52	2050302			32.60	56.60	6.80	0.20	3.40	0.20				x	11.4	w	14.7	15.0	1165-1285	900	1440	220
Unorex 53	2050303	2.00			78.60			0.20			8.80	9.80	x	11.2	w	13.8	14.1	1100-1220	900	1360	340
Universallegierungen Alliages universel Leghe universale Multi-purpose alloys																					
Unorpan 15	2050405	71.00	8.50	17.30			2.40						x	16.3	g	16.1	16.3	1005-1040	800	1170	140
Unorpan 16	2050406	74.00	1.50	14.50	5.50		3.30	1.00	x				x	15.7	g	16.3	16.5	950-1030	750	1160	235
Unorpan 32	2050421	38.00		36.00	17.00			8.90	x					13.1	h	16.9	17.3	1020-1075	750	1225	240
Unorpan best	2050422	57.00		27.00	10.00		1.40	4.00	x				x	13.9	g	16.9	17.1	960-1060	800	1210	230
Unorpan light	2050423	32.00		35.50	19.90			12.50	x					12.3	h	17.1	17.3	980-1050	800	1250	205
Unorpan 51	2050431	2.00		58.00	32.90	2.00	3.50	1.50					x	10.9	w	16.6	16.8	1060-1150	800	1300	210
Goldgusslegierungen Alliages conventionnel Leghe convenzionale Gold alloys																					
Unoral 11	2050501	71.00	2.00	12.30	1.90		0.50				12.20		x	15.4	g			900-930	700	1060	230
Unoral 12	2050502	70.00	7.50	13.40	0.95		0.50		x		7.60		x	15.7	g			930-990	700	1120	245
Unoral Bio 1	2050506	71.00	3.90	12.30			0.50		x		12.20			15.4	g			875-920	700	1050	250
Unoral 33	2050603	55.60	1.00	24.40	3.70		1.00	x	x		14.00		x	13.7	g			840-895	700	1000	280
Unoral 52	2050702	10.00		59.00	20.00		1.00		x		9.50		x	11.2	w			940-1000	700	1130	170
		Co %	Cr %	Mo %	C %	Si %	Mn %	W %	Al %	Fe %			div, %								
Nichtedelmetalllegierungen Alliages non précieux Leghe non preziosio Non precious metals																					
UNP 4N	2090522	62.00	29.00	6.00	0.30	0.40	0.60	1.00	< 0.40	< 1.00			< 0.10	8.3	w			1340-1370	900	1450	360
UNP 6N	2090520	61.00	28.00		< 0.10	1.65	0.25	8.50		< 0.50			< 0.10	8.3	w	13.9	14.1	1390-1415	950	1475	285

LEGHE DENTALI | DENTAL ALLOYS



b HV5	a HV5	0.2% Dehngrenze 0.2% Limite d'elast. 0.2% Limite di elast. 0.2% Yield strength		Bruchdehnung Allongement Allungamento Elongation		Zugfestigkeit Résistance à la tract. Carico di rottura Ultim. tensile strength		E-Modul Module d'élast. Modulo di elast. Modulus of elast.	Tiegel Creuset Crogioli Crucible	Einbettmasse Revêtement Rivestimento Investment	Oxidation Oxidation Ossidazione Oxide firing	Vakuum Vacuum Vuoto Vacuum	Abkühlung Refroidissement Raffreddamento Cooling phase	aushärten durcir tempera hardening	Anwendungen Applications Applicazioni Applications	Lote Brasures Saldami Solder	Laserdarht Fil Laser Filo laser Laser wire	Legierung Alliage Lega Alloy
		g MPa	b MPa	b %	a %	b MPa	a MPa	b MPa			°C / min.		°C / min.	°C / min.				
220	250	600	710	8	5	680	740	118'000	Graph.	Phos.	950 / 10	x	s	600 / 15	2, 3, 4, 5	1100, 800, 800FL	2055400	Unorex 11
205	255	540	650	9	7	600	680	109'000	Graph.	Phos.	950 / 5	x	s	600 / 15	2, 3, 4, 5	1100, 800, 800FL	2055401	Unorex 12
235	240	610	650	10	5	700	740	101'000	Graph.	Phos.	950 / 10	x	l	500 / 15	2, 3, 4, 5	1040, 800, 800FL	2055400	Unorex 13
215	235	500	550	10.5	7.5	690	730	115'000	Graph.	Phos.	950 / 5	x	s	600 / 15	2, 3, 4	1040, 800, 800FL	2055401	Unorex 16
205	220	500	555	6	5	590	640	90'000	Graph.	Phos.	950 / 10	x	l	450 / 15	2, 3, 4, 5	1040, 800, 800FL	2055402	Unorex Bio 3
220	220	510	530	9	8	630	640	95'000	Graph.	Phos.	900 / 5	-	s	500 / 15	2, 3, 4, 5	1040, 800, 800FL	2055402	Unorex Bio 4
225	255	600	640	4	3	610	750	100'000	Graph.	Phos.	880 / 10	x	s	500 / 15	2, 3, 4, 5	1040, 800, 800FL	2055402	Unorex Bio 5
250	260	550	600	23	14	710	740	132'000	Cer.	Phos.	950 / 5	-	s	650 / 15	2, 3, 4, 5	1100, 800, 800FL	2055403	Unorex 31
250	260	515	560	24	15	865	955	127'000	Cer.	Phos.	950 / 5	-	s	600 / 15	2, 3, 4, 5	1110, 800, 800FL	2055403	Unorex 33
240	240	525	585	7.7	10	670	735	121'000	Graph.	Phos.	950 / 5	-	l	550 / 15	2, 3, 4, 5	1040, 800, 800FL	2055401	Unorex 34
240	290	575	681	18	10	850	902	130'000	Cer.	Phos.	900 / 5	-	l	600 / 15	2, 3, 4, 5	1110, 800, 800FL	2055403	Unorex 35
245	245	510	572	25	20	715	793	117'000	Cer.	Phos.	900 / 5	-	s	600 / 15	2, 3, 4, 5	1110, 800, 800FL	2055403	Unorex 36
205	235	460	540	26	18	730	800	122'000	Cer.	Phos.	950 / 5	-	l	600 / 15	2, 3, 4, 5	1110, 800, 800FL	2055405	Unorex 52
360	400	920	990	14	5	1050	1170	124'000	Cer.	Phos.	950 / 5	-	s	650 / 15	2, 3, 4, 5, 6	1040, 800, 800FL	2055405	Unorex 53
170	185	385	450	11	6	610	650	95'000	Graph.	Phos.	800 / 10	-	s	550 / 15	1, 2, 3, 4, 5	950, 800, 800FL	2055410	Unorpan 15
250	240	700	660	4	4	670	680	100'000	Graph.	Phos.	800 / 10	-	s	500 / 10	1, 2, 3, 4, 5	880, 780	2055410	Unorpan 16
190	240	560	660	5	3	610	640	100'000	Cer.	Phos.	800 / 5	x	l	500 / 10	2, 3, 4, 5	950, 780	2055412	Unorpan 32
230	250	320	570	18	3	496	650	95'000	Cer.	Phos.	800 / 5	x	l	550 / 15	2, 3, 4, 5	950, 780	-	Unorpan best
205	220	372	430	5	5			100'000	Cer.	Phos.	800 / 5	-	l	550 / 15	2, 3, 4, 5	950, 780	-	Unorpan light
225	230	420	510	10	5	560	725	100'000	Cer.	Phos.	800 / 5	x	s	550 / 15	2, 3, 4, 5	950, 780	2055405	Unorpan 51
160	250	380	670	45	20	490	730	99'000	Graph.	Phos. / Gip.	750 / 5			350 / 15	1, 2, 3, 4, 5	830, 780	2055406	Unoral 11
180	295	380	730	37	13	580	860	100'000	Graph.	Phos. / Gip.	750 / 5			350 / 15	2, 3, 4, 5, 6	830, 780	2055406	Unoral 12
160	250	380	630	42	16	510	730	99'000	Graph.	Phos. / Gip.	750 / 5			400 / 15	2, 3, 4, 5	800, 780	2055406	Unoral Bio 1
195	280	530	860	25	5	590	870	103'000	Graph.	Phos. / Gip.	750 / 5			400 / 15	1, 2, 3, 4, 5, 6	800, 780	2055409	Unoral 33
150	250	300	650	24	9	510	800	110'000	Cer.	Gip.	750 / 5			400 / 15	2, 3, 4	830, 780	2055405	Unoral 52
									Cer.	Phos.					6	UNP 1180	6083556	UNP 4N
									Cer.	Phos.	980 / 10		s		2, 3, 4, 5	UNP 1180	6083556	UNP 6N

LOTE | BRASURES | SALDAMI | SOLDERS



	Bestell-Nr. No de comm.No di ordin.Order No.	Zusammensetzung Composition Composizione Composition									Arbeitstemperatur Température de travail Temperatura del lavoro Working temperature °C	Flussmittel Flux Flux Flux	Farbe Couleur Colore Colour	Lotform Forme de brasure Forma della saldatura Design of the solder	Markierung Marquage Marcatura Mark
		Au %	Pt %	Ag %	Pd %	Cu %	Sn %	Zn %	In %	Ni %					
Lote für Au • Brasures pour Au • Saldami per Au • Solders for Au															
Unorsol Gold 1110	2051150	85.00			10.50			4.50			1110	universal	h	Stab, Fil, Filo, Wire	
Unorsol Gold 1100	2051151	80.00	7.80	10.50				1.70			1100	universal	g	Stab, Fil, Filo, Wire	
Unorsol Gold 1040	2051152	80.50	1.50	16.50				1.50			1040	universal	g	Stab, Fil, Filo, Wire	
Unorsol Gold 950	2051153	60.00	0.50	36.60			0.80	2.00			950	universal	g	Stab, Fil, Filo, Wire	
Unorsol Gold 880	5051154	75.00		10.50		11.50		3.00			880	universal	g	Stab, Fil, Filo, Wire	
Unorsol Gold 830	2051155	75.00		1.50	2.80	12.50		2.90	5.30		830	universal	g	Stab, Fil, Filo, Wire	
Unorsol Gold 800	2051156	75.00		9.00		7.00		7.50	1.50		800	universal	g	Stab, Fil, Filo, Wire	
Unorsol Gold 800FL	2051159	75.00		9.00		7.00		7.50	1.50		800	universal	g	Stab, Fil, Filo, Wire	-
Unorsol Gold 780	2051157	75.00		4.80	0.30	11.40		3.00	5.50		780	universal	g	Stab, Fil, Filo, Wire	
Lote Au / Co-Cr • Brasures pour Au / Co-Cr • Saldami per Au / Co-Cr • Solders for Au / Co-Cr															
Unorsol NEM 940	2051160			46.00	30.00	24.00					940	universal	w	Stab, Fil, Filo, Wire	
Unorsol NEM F910	2051023	80.00					1.00	4.00		15.00	910	special	w	Stab, Fil, Filo, Wire	
Unorsol NEM 890	2051161	80.00						8.00		12.00	890	universal	w	Stab, Fil, Filo, Wire	
Lot für UNP • Brasure pour UNP • Saldame per UNP • Solder for UNP															
Unorsol UNP 1180	6083556	64.00	28.50	5.00	1.00	1.00	0.50				1180		w	Stab, Fil, Filo, Wire	-

Farbe	w	weiss
Couleur		bianco
Colore		white
Colour	h	hellgelb jaune pâle giallo chiaro pale yellow
	g	gelb jaune giallo yellow

Härte	g	nach dem Guss
Dureté		après coulée
Durezza		dopo la fusione
Hardness	as cast	
	b	nach dem Brand / weichgeglüht après cuisson / recuit dopo la cottura / tenero after ceramic firing / soft annealed
	a	ausgehärtet durci temperato hardened

Tiegel	Graph.	Graphit graphite grafite graphite
Creuset		
Crogioli	Cer.	Keramik céramique ceramica ceramic
Crucible		
Einbettmasse	Phos.	Phosphat phosphate fosfati phosphate
Revêtement		
Rivestimento		
Investment	Gip.	Gips plâtre gesso plaster

Abkühlung	s	schnell
Refroidissement		rapide
Raffreddamento		rapido
Cooling phase	fast	
	l	langsam lent lento slow
Anwendungen	1	Inlays, Inlays, Intarsi, Inlays
Applications	2	Kronen, Couronnes, Corone, Crowns
Applicazioni	3	Kleine Brücken, Bridges petit, Ponti piccoli, Bridges small
Applications	4	Grosse Brücken, Bridges grand, Ponti grandi, Bridges large
	5	Frästechnik, Fraisage, Fresaggi, Milling
	6	Modellguss, Squelettées, Scheletrati, Model casting

