

SAFINA dental materials

		Dental alloys for the conventional technique (ČSN EN ISO 22674:2016)					Dental alloys for metal-ceramic (ČSN EN ISO 22674:2016 + ČSN EN ISO 9693-1:2012)
		Aurix L	Aurix L60	Aurosa	Palargen L	Argenpal IV A	Safibond Bio
Trade form		wafers/wire	wafers	wafers	wafers	wafers	wafers
Colour		yellow	yellow	white	white	white	white
Type		4	4	4	3	4	4
Indication		B,D,E,F,G	B,D,E,F,G	B,D,E,F,G	B,D,E,G	B,D,E,F,G	D,E,I
$\alpha(80 - 600\text{ °C})^*$ (K ⁻¹)		–	–	–	–	–	14,1 × 10 ⁻⁶
Composition – weight % (x contents less than 1 %)	Au	65,1	54,5	20,0	–	5,0	77,6
	Ag	20,0	26,0	44,8	57,4	59,9	2,0
	Pd	3,0	5,0	20,0	40,0	22,5	–
	Pt	1,3	x	–	–	–	18,0
	Cu	9,6	12,0	14,4	–	10,0	–
	Sn	–	–	–	x	x	–
	Zn	1,0	2,0	x	2,1	2,0	1,8
	other	–	Rh	–	–	Ir	Ti,Ir
Density (g/cm ³)		14,7	13,8	11,5	10,9	11,2	18,5
Melting range (°C)		905 – 940	870 – 920	953 – 1 009	1 175 – 1 250	965 – 1 035	1 050 – 1 180
Casting temp. (°C)		1 020	1 020	1 100	1 400	1 140	1 330
Crucible		ceramic/graphite	ceramic	ceramic	ceramic	ceramic	ceramic/graphite
Soft annealing	temp. (°C)	700	700	700	-	850	–
	time (min)	15	15	15	-	15	–
Hardening	temp. (°C)	400	400	450	500	500	500
	time (min)	30	20	20	30	20	15
Proof stress Rp 0,2 (MPa)	soft	310	405	450	245	340	510
	hardened	600	780	610	400	690	560
Elongation A (%)	soft	30	22	10	20	20	4
	hardened	4	5	4	17	6	3
Hardness HVS	soft	120	170	157	105	165	200
	hardened	225	225	200	185	275	220

* coefficient of linear thermal expansion

Soldern ČSN EN ISO 9333:2007	Composition – weight %									
	Au	Ag	Pd	Pt	Cu	Sn	Zn	Mn	Ni	other
Palargen M 2	25,0	47,0	1,0	–	25,0	–	2,0	–	–	–
Aurix M	65,1	15,5	3,0	1,3	3,1	2,0	10,0	–	–	–

			Alloys for dental amalgam ČSN EN ISO			
Material			Safargam NG2	Safargam Plus	Safargam Dentis 60	
Trade form			capsule	capsule	capsule	
Package			50pcs	50pcs	50pcs	
Safargam/Hg (mg)		Capsule size 1	350mg/400mg	350mg/400mg	350mg/400mg	
ratio		Capsule size 2	525mg/600mg	525mg/600mg	540mg/600mg	
		Capsule size 3	700mg/800mg	700mg/800mg	720mg/800mg	
Average values	Composition – weight % (x contents less than 1 %)	Ag	42	50	60	
		Sn	32	30	22	
		Cu	26	20	18	
		after	–	–	–	
Ratio			1:1,1	1:1,1	1:1,1	
Average values	Creep (%)		0,25	0,3	0,3	
	Comp. strength (MPa)	after 1 h	100	100	130	
		after 24 h	450	450	400	
	Dimensional change (%)		-0,05 až +0,15	-0,05 až +0,05	-0,05 až +0,05	
Plasticity (min.)		6	10	5,5		

Indication

- A – single and double-land inlays
- B – three-land inlays (MOD), onlays
- C – root inlays
- D – separate crowns
- E – short bridges (3-4 units)
- F – large bridges
- G – milled works
- H – construction and removable replacement parts
- I – metal-ceramic crowns and bridges

Type

- 1 – low-strength alloys (soft)
- 2 – medium-strength alloys (medium-hard)
- 3 – high-strength alloys (hard)
- 4 – extra-high strength alloys (extra hard)