

Argenco 43

“Argenco 43 is a type IV, yellow colour, economical casting alloy.”

Composition

Au	Pd	Ag	Ir	Cu	Zn
40.0%	3.0%	44.0%	<1.0%	11.98%	1.0%

Technical Data

Type	Melting Range °C	Modulus of Elasticity MPa	Density gm/cc
IV	820-900	-	12.3

Vickers Hardness DPN		Yield Stress MPa (0.2% offset)		Tensile Stress MPa		Elongation %	
S	H	S	H	S	H	S	H
150	200	360	464	468	548	20	10

Solders

Solder	Argesol 720	750Y	Argesol Lo

Laser Wire

Laser Wire	LWO 75

Skillbond



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Argenco 43 is a type IV, yellow colour, economical casting alloy. The presence of palladium adds strength to the alloy and increases its tarnish and corrosion resistance. Its micro-fine grain structure and superior physical properties permit the fabrication of inlays, onlays, full cast crowns, short and long span bridges.

Instructions for use:

Spruing	Single:	Use direct spruing with adequate reservoirs. Use 2.5 mm to 3.5 mm diameter sprues, 10 – 15 mm in length.
	Multiple:	Use indirect spruing with 4.0 mm diameter reservoir bars. Use 2.5 mm diameter sprues from the crowns to the reservoir bar and 3.5 mm diameter sprues from the reservoir bar to the sprue former cone.
Investment:		A high quality gypsum-bonded investment is required. Follow the manufacturer's instructions.
Burnout:		After adequate bench setting, place the invested ring into a room temperature furnace and raise the temperature to 650°C and heatsoak for 30 minutes.
Melting:		It is recommended to use a quartz crucible using a gas/air torch with a multi-orifice tip. A neutral or slightly reducing flame is desirable. Heat gradually and uniformly. If using an induction casting machine, set the temperature to 1010°C and melt in a graphite-lined crucible. The alloy melts readily, so avoid overheating the alloy. Do not use flux. After casting, allow the ring to bench cool before devesting. Add 50% new alloy to the clean buttons.
Pickling:		Do not use any pickling solution. Microblast only.
Finishing:		Lightly grind the alloy with aluminum oxide stones, sintered diamonds or carbide burs. After grinding, use rubber wheels or bristle brushes with polishing paste.
Polishing:		Polish to a high lustre using impregnated polishing wheels or a woollen mop with polishing paste. Finally clean in a recommended solution in an ultrasonic cleaner for 5 minutes.