



Argeloy Partial

“Chrome cobalt alloy for partial chromes and dentures”

Composition

Co	Cr	Mo	Other
64.0%	28.0%	6.0%	2.0%

Technical Data

Type	Melting Range °C	Density gm/cc
IV	1300-1370	8.3

Vickers Hardness DPN		Yield Stress MPa (0.2% offset)		Tensile Stress MPa		Elongation %	
S	H	S	H	S	H	S	H
-	380	-	552	-	752	-	10

Solders

Solder	Argesol Lo
	Ceka Sol

Laser Wire

Laser Wire	LWCOCR
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*Note the colour of this card in no way represents the colour of the alloy.

Argeloy Partial

Argeloy Partial is a cobalt-based casting alloy for removable frameworks. It is both nickel and beryllium free and offers the physical properties, including high strength and surface hardness, of a Type IV dental alloy.

Instructions for use:

Spruing:	Attach 2 – 4 sprues to the wax pattern depending on the size of the framework. Sprue dia 3 – 3.5mm. Connect to the patterns thickest point in a delta design. Arrange sprues in the direction of alloy flow. Keep sprues short to minimize the distance between cone and cast. Attach sprue former at least 1cm above pattern.
Investment:	If using a liquid investment apply a thin and even coating to the pattern avoiding bubbles. Invest immediately. Do not allow the liquid investment to dry. PH3 investment is ideally suited. Follow the manufacturer's instructions and mix under vacuum and pour into mould avoiding bubbles. Hardening time: 30 – 45 minutes.
Burnout:	Preheat investment moulds according to the investment manufacturers instructions. Raise the temperature to: 3000C and heatsoak for 30-60 minutes. 600°C and heatsoak for 30 minutes. 1000°C and heatsoak for 45-60 minutes. For plates and intricate designs, maximum temperature 1040°C heatsoak for 45-60 minutes.
Melting:	Torch melting: When using the oxy-acetylene torch equipped with a no. 4 or no. 6 tip, adjust the flame with the inner cone between 12 and 24mm long. Do not hold the flame too close and maintain a distance of approx 40mm above the crucible using a slow rotating movement. Do not overheat and ensure the flame covers the alloy during the entire melting process. Cast when the alloy slumps. After casting allow the mould to bench cool. Induction melting: Do not use graphite crucibles. As soon as the ingots are molten and the shaded areas have disappeared wait for approx 4 secs then initiate centrifugal casting.
Finishing:	Sandblast the casting thoroughly to remove all evidence of investment particles and oxide surface. Finish with appropriate stones and electro-polish by immersing dry cast into the electrolytic bath and polish for 5 minutes. Rinse, dry and inspect. Repeat the process if necessary to improve the lustre.
Polishing:	After electrolytic polishing, remove the surface with rubber wheels. Polish on a high speed lathe using lathe bristle brushes and paste. Use wool/cotton mops/buffs with universal paste for final polish.
Reuse:	Argeloy Partial ingots should be used for each cast. If previously cast buttons are to be re-used a mixture by weight 1:1 should be observed. Prior to re-use, buttons should be carefully cleaned to remove investment and oxides.