

Wires: instructions for use

(Products with item numbers in the appendix)

Processing instructions

When trimming alloys, wear safety glasses and a face mask and use a dust extractor.

With the publication of these instructions for use all previous editions are no longer valid.

The manufacturer refuses any liability for damages due to disregard of the instructions for use below.

Intended use

Removable dentures.

Product description

The wires in precious metal alloys are used as holding elements (clasps) in removable dentures.

Expected clinical benefit

Restoration of chewing function and improved aesthetics.

Qualification

Professional dentist and dental technician know-how is required. The instructions for use must be available and understood before the first application. The manufacturing work must be carried out by qualified specialists. For information and additional details, please contact your Cendres+Métaux representative.

Side effects

With patients having an existing allergy to one or several elements contained in an alloy, this particular alloy must not be used. With patients suspected of having an allergy to one or several elements contained in an alloy, this alloy can only be used after preliminary allergological testing and proof of a non-existing allergy.

Traceability of lots numbers

If different lots of a wire are being used for the realisation of a restoration, all relevant lot numbers have to be recorded to ensure that they can be traced.

Cold-forming

Bending wires supplied in a soft state (cold-forming) deforms their structure and is accompanied by hardening. If the wire reaches the stage where it is difficult to bend, it must be intermediate-annealed (soft-annealed).

Bending technique

When bending the wire with tools such as pliers, make sure that the wire is not damaged, e.g. notches, which could cause the wire to fracture at these points.

Soft-annealing

Soft-annealing is carried out in a porcelain furnace – Elasticor at 700 °C for 10 mins. followed by quenching in water.

Hardening

This is achieved by glowing the wire in a porcelain furnace at 400 °C for 15 mins. followed by bench cooling to room temperature.

Processing

Once the clasps have been completed and soft annealed, they have to be hardened to give them their optimum mechanical properties.

Pickling

After heat treatment (soldering, soft annealing or hardening), the wire should be pickled in warm, clean 10 % (by volume) sulphuric acid (H₂SO₄).

Please note: When using other pickling agents, follow their manufacturers' instructions.

Polishing

After finishing and hardening the wire, any areas of exposed metal must be polished to a high lustre to remove the oxide layer completely.

Labeling on packaging/symbols	
	Date of manufacture
	Manufacturer
	Catalogue number
	Batch code
	Quantity
	Consult instructions for use URL: cmsa.ch/docs
Rx only	Attention: According to US federal law, this product may only be sold by or on behalf of a physician.
	Cendres+Métaux products with CE labelling meet the requirements of the relevant European requirements.

Physical and mechanical properties															
Alloys	Colour	Composition in weight %								Melting range °C	Härte HV 5				Young's Modulus GPa
		Au + Pt-Met.	Au	Pt	Pd	Ag	Cu	Zn	Ir		soft	hardened			
Elasticor	Yellow	74.5	61.0	13.5		16.5	9.0			950–1050	700 °C/10'/H2O	HV 205	400 °C/15'/air	HV 285	96

Round wires, delivery forms			
	Cat. No.	Diameter	Length
		mm	mm
Elasticor	010264	1.00	200
Elasticor	010266	1.10	200
Elasticor	010267	1.15	200
Elasticor	010268	1.20	200

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