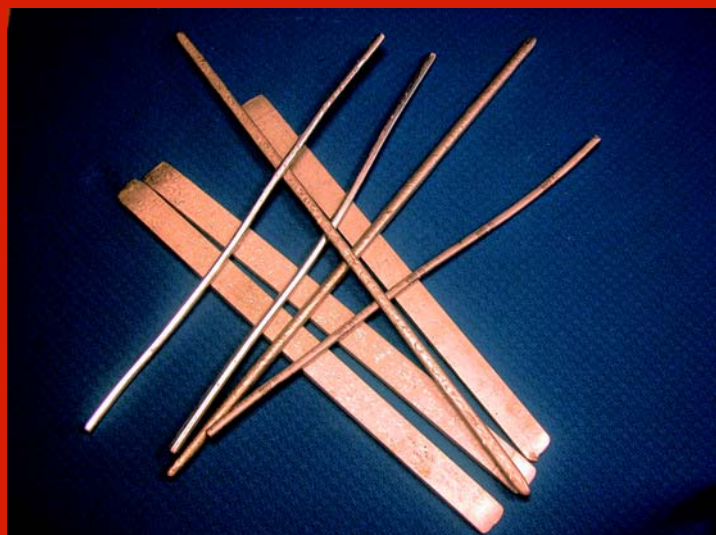


Metalloy



- Melting points from 47°C to 327°C
- Alloy combinations to order
- Laboratory-controlled products
- Economical to use

METALLOY

Métaconcept supplies a whole range of special-purpose alloys with specific melting points, a property ensured by the carefully controlled alloy composition. This makes it possible to obtain the change of state (solid - liquid) required for safety systems and for forming parts in many industrial and medical applications. These products are supplied in flat bar, rod and bar form. From a palette of over 150 possible combinations, Métaconcept has selected the following items, which are kept in stock at all times:

Code	Description	Density	Solid	Liquid	Packaging
20287	Metalloy 47 - Approx. 1 Kg bars	9.15 g/cm ³	47° C		25 Kg boxes
20279	Metalloy 70-72 - Approx. 1 Kg bars	9.58 g/cm ³	70° C	72° C	25 Kg boxes
20263	Metalloy 96 - Approx. 1 Kg bars	9.69 g/cm ³	96° C		25 Kg boxes
11209	Metalloy 138 - Approx. 1 Kg bars	8.56 g/cm ³	138° C		25 Kg boxes

Any other alloy/melting point combination can be supplied upon request. Métaconcept also manufactures small fusible parts to customers' specifications, for use in heat-sensitive applications.

Métaconcept operates a recovery service for white metal oxides, spent baths, off-cuts and scrap. Feel free to contact us for terms and conditions (cf. our "Recycling" information sheet).

Metalloy (Expansion/shrinkage data - microns per mm)

CASTING TIME	METALLOY 47	METALLOY 70-72	METALLOY 138
6 minutes	+ 0.2	+ 2.7	+ 0.7
30 minutes	0.0	+ 4.6	+ 0.6
1 hour	- 0.1	+ 5.1	+ 0.6
6 hours	- 0.2	+ 5.1	+ 0.5
24 hours	- 0.2	+ 5.1	+ 0.5
3 weeks	- 0.2	+ 5.7	+ 0.5

CHARACTERISTICS

Economical to use.
Easy to use, shape and mould.
Reusable alloys.
Very little dross - minimal losses.
Supplied in bar, rod or flat bar form
Bar dimensions: 30 x 20 x 350 mm approx.
Rod dimensions: 12 x 3 x 500 mm approx.
Flat bar dimensions: 25 x 6 x 400 mm approx.

TYPICAL APPLICATIONS

Dies - moulds
Temporary positioning
Form - pipe bending
Fusible cores.
Safety fuses
Support of parts during machining
Radiotherapy screens

INSTRUCTIONS FOR USE

Workshops use many different processes, depending on the application and the alloy being used.

In general however, you need to heat the alloy to a temperature 15-20 % above its melting point, then cast it into a suitable mould and allow it to cool, allowing for any expansion or shrinkage.

If required, the alloy can be remelted after use, ready for a new application. If this procedure is carried out frequently, we recommend contacting Métaconcept to arrange a metallurgical analysis with a view to restoring the correct titre if necessary. This is because contaminants such as metal from the mould, and oxidation by the surrounding air can slightly alter the alloy's composition.

Remelting Metalloy for subsequent reuse:

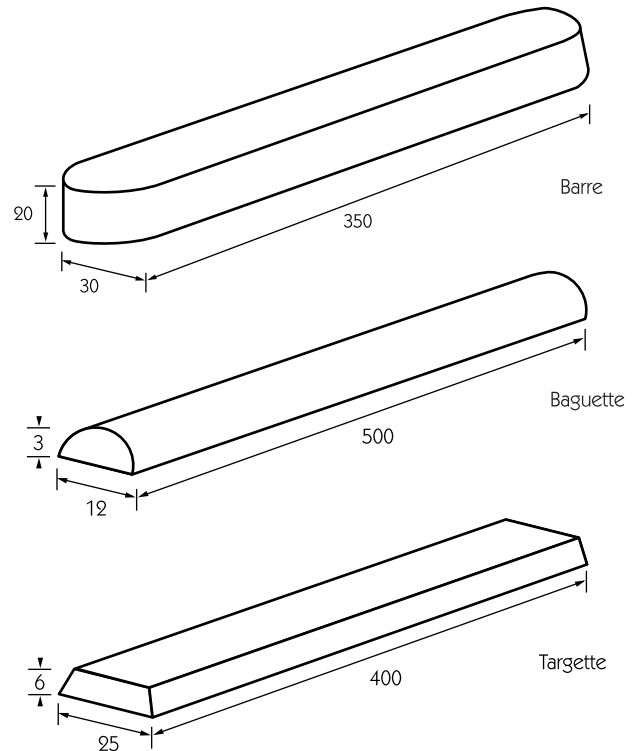


All the information in this document is provided for guidance only and Métaconcept declines all liability in respect thereto.

SAFETY PRECAUTIONS

In order to prevent molten metal causing burns, it is advisable to wear a protective apron, shoes, gloves and goggles.

Metalloy shapes:



NOTES

Low melting point alloys are subject to dimensional variations over time (expansion/shrinkage). These phenomena depend on the casting and cooling times. Generally, casting with a cooling time of under 15 minutes results in optimal stability.

A good example of an application that uses low melting point alloys is the production of radiotherapy screens, in which the alloy acts as a radiation barrier:

