

# Y146WM

## Technical chart

Last revision

15/11/2013

YELLOW MASTER ALLOY FOR 9-14 KT

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Title **000** Colour **Yellow** [ L: a: b: c: ]

### Product description

Y146WM is a master pre-alloy containing grain refiners and other additives, to be used for the production of master alloys for mechanical working in 9-14Kt by adding the desired amount of silver. The amount of silver to be added is displayed in the following table:

9Kt	Au	Ag	Y146WM
Green yellow	375	45	580
Light yellow	375	90	535

14Kt	Au	Ag	Y146WM
Green yellow	585	30	385
Light yellow	585	60	355

### Recommended applications

Y146WM has been specifically studied for mechanical working. Offers best performances in chain production. The main physico-chemical properties are reported in the following table:

Au	Ag	Y146WM	Tsol (°C)	Tliq (°C)	d (g/cm <sup>3</sup> )	Hardness (HV <sub>0.2</sub> )
375	45	580	860	915	10,9	85
375	90	535	865	895	11	100

Au	Ag	Y146WM	Tsol (°C)	Tliq (°C)	d (g/cm <sup>3</sup> )	Hardness (HV <sub>0.2</sub> )
585	30	385	850	885	12,7	115
585	60	335	830	875	12,8	130

### Physical-chemical properties

#### Temperatures (°C)

Solidus
Liquidus
Range

### Mechanical characteristics

Tensile strength (Rm) [N/mm <sup>2</sup> ]	
Yield strength (Rp0.2) [N/mm <sup>2</sup> ]	
Elongation (A) [%]	
"As cast" hardness [HV 0.2]	115 - 130
Hardness after 70% red. [HV 0.2]	
Hardness after annealing [HV 0.2]	
L1	
L2	
L3	

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### Instructions for use

#### Mechanical working

Pouring temperature (°C) 980 - 1040

Recommended thickness reduction 70,0%

#### Annealing treatment

Sheet thickness	Temperature (°C)	Minutes
5 - 14 mm	620-660	35
1 - 5 mm	620-660	30
0,2 - 1 mm	620-660	25

#### Quenching

Quench directly in 50% water and 50% alcohol or only in water

### Notes

Data reported in this technical chart has to be considered as of general value and are given just to supply to the user some general informations about the use of this prealloy. Legor's alloys are manufactured in high-tech furnaces under standardized conditions and by using only high purity raw materials. In order to obtain best performances, it is recommended to the user to use only high quality silver and gold. Legor is not responsible for any defect ascribable to the use of poor quality silver and gold. For any suggestion about the purchasing of precious metals, don't hesitate to contact our technical customer service.