

TECHNICAL DATASHEET AND GUIDELINE

ALPCAST
Title

Alpaca for casting

GENERAL INFORMATION

Typology	Alpaca
Production process	Casting
Color	White
Color shade	Off-white
Density (g/cm ³)	8.4
Melting temperatures	
Solidus (°C)	900
Liquidus (°C)	935

Commercial composition	
Cu (%)	55
Ni (%)	9
Zn (%)	36



FULL CHARACTERIZATION DATA

General characteristics	
Fluidity (grid filling test) [%]	87
Color coordinates	
L*	82
a*	-0.4
b*	13
c*	13
YI*	25.8

Mechanical characteristics	
Tensile strength (Rm) [MPa]	488
Yield strength (Rp0.2) [MPa]	385
Elongation at rupture (A) [%]	22
As cast hardness [HV 0.2]	115
Hardness after 70% area red. [HV 0.2]	251
Hardness after annealing [HV 0.2]	151
Single step age-hardening hardness [HV 0.2]	122

PRODUCT APPLICATIONS

Casting in open systems
Casting in closed systems
Stone-in-place casting
Casting without stones

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CASTING PROCESSING PARAMETERS

Casting temperatures	Metal - from (°C)	Metal - to (°C)	Flask - from (°C)	Flask - to (°C)
Thin (below 0.5 mm)	1035	1065	660	720
Medium (from 0.5 to 1.2 mm)	1015	1035	580	650
Thick (above 1.2 mm)	995	1015	460	600

Trees without stones

Let the flask cool down for 10-15 minutes, then quench in water.

Stone-in-place casting trees

Let the flask cool down for 30-45 minutes, then quench in water.

Pickling

Dip in RADIAL solution (50 g/l conc. at 60°C for 2 min.), or in sulphuric acid (10% conc. at 50°C for 5 min.)