

**MASTER
ALLOY**
BR6S

BRONZE FOR CASTING

GENERAL INFORMATION
General information

Typology	Bronze
Color	Red
Color shade	Red
Production process	Casting
Grain refinement level	Minimum
Deoxidation level	Medium

Commercial composition (%)

CU	94.0
SN	6.0

Melting Temperatures

Solidus [°C]	980.0
Liquidus [°C]	1020.0
Melting range [°C]	40.0

FULL CHARACTERIZATION DATA
Color coordinates

L *	a*	b*	c*	Yellow Index
88.2	6.1	14.7	15.9	

Mechanical characteristics

As cast hardness [HV 0.2]	100.0
Hardness after 70% area red. [HV 0.2]	235.0
Hardness after annealing [HV 0.2]	105.0
Tensile strength (Rm) [Mpa]	419.0
Yield strength (Rp0.2) [MPa]	242.0
Elongation at rupture (A) [%]	38.0

Physical characteristics

Density [g/cm³]	8.8
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General characteristics

As cast grain size [µm]	450.0
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Product applications

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

CASTING PROCESSING PARAMETERS
Pre-melting temperature

Temperature [°C] 1140

POURING TEMPERATURES

	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660	720	1120	1150
0.5 - 1.2 mm	580	650	1100	1120
> 1.2 mm	460	600	1080	1100

Trees without stones

Let the flask cool down for 5 minutes, then quench it in water.

Stone-in-place casting trees

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

Pickling

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