

**MASTER  
ALLOY**
**BR10S**

BRONZE FOR CASTING

**GENERAL INFORMATION**
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Typology	Bronze
Color	Red
Color shade	Pink
Production process	Casting
Grain refinement level	Low
Deoxidation level	Low

**Commercial composition (%)**

CU	90.0
SN	10.0

**Melting Temperatures**

Solidus [°C]	935.0
Liquidus [°C]	1000.0
Melting range [°C]	65.0

**FULL CHARACTERIZATION DATA**
**Color coordinates**

L *	a*	b*	c*	Yellow Index
85.8	6.2	17.8	18.8	

**Mechanical characteristics**

As cast hardness [HV 0.2]	110.0
Hardness after 70% area red. [HV 0.2]	280.0
Hardness after annealing [HV 0.2]	120.0
Tensile strength (Rm) [Mpa]	455.0
Yield strength (Rp0.2) [MPa]	206.0
Elongation at rupture (A) [%]	45.0

**Physical characteristics**

Density [g/cm³]	8.7
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**Product applications**

Stone-in-place casting  
 Casting in closed systems  
 Casting in open systems

**CASTING PROCESSING PARAMETERS**
**Pre-melting temperature**

Temperature [°C]

**POURING TEMPERATURES**

	Flask from [°C]	Flask to [°C]	Metal from [°C]	Metal to [°C]
< 0.5 mm	660	720	1100	1130
0.5 - 1.2 mm	580	650	1080	1100
> 1.2 mm	460	600	1060	1080

**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.