

**MASTER
ALLOY**
OTT90-10

BRASS AT 10% ZINC

GENERAL INFORMATION
General information

Typology	Brass
Color	Yellow
Color shade	Pinkish yellow
Production process	All-purpose
Grain refinement level	Minimum
Deoxidation level	Minimum

Commercial composition (%)

CU	91.0
ZN	9.0

Melting Temperatures

Solidus [°C]	1040.0
Liquidus [°C]	1060.0
Melting range [°C]	20.0

FULL CHARACTERIZATION DATA
Color coordinates

L * a* b* c* Yellow Index

Mechanical characteristics

As cast hardness [HV 0.2] 70.0

Physical characteristics

Density [g/cm³] 8.8

Product applications

Ingot casting
Wire production
Sheet production

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	1150	1180
0.5 - 1.2 mm	580	650	1130	1150
> 1.2 mm	460	600	1110	1030

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.

MECHANICAL WORKING PARAMETERS
Pre-melting temperature

Temperature [°C]

Reductions

Wire - diameter (%)	45.0
Sheet - area or thickness (%)	70.0

POURING TEMPERATURES	Countinous from [°C]	Countinous to [°C]	Ingot to [°C]	Ingot from [°C]
Temperatures	1160	1240	1140	1180

MECHANICAL WORKING ANNEALING	Temp. from [°C]	Temp. to [°C]	Time [min]
< 1 mm	660	700	25
1 - 5 mm	660	700	30
> 5 mm	660	700	35

Mechanical working quenching

Quench directly in water.