

## TECHNICAL DATA SHEET

### SPARK590T

Alloy for the production of bronze items, jewels and models obtained by investment casting. The elements contained in this product ensure a high deoxidation after casting and a high surface quality, making it suitable for castings with and without stones in place.

TAB.1 - Mechanical data

Hardness as cast	120	HV
Hardness hardened	n.d.	
Tensile strength	455	MPa
Yield strength	206	MPa
Elongation	45	%

TAB.2 - Physical data

Color	pink
Colour Coordinates	L*: 85.71 a*: 5.99 b*: 17.41
Density	8.78 g/cm <sup>3</sup>
Melting Range	Solidus: 935 °C Liquidus: 1000 °C

TAB.3 - Heat treatments

Solution annealing	700 30	°C min
Recrystallization Annealing	700 30	°C min
Hardening	n.d.	

TAB.4 - Investment casting parameters

Premelting temperature		1100	°C
Casting Temperature	Min:	1050	°C
	Max:	1150	°C
Water investment powder ratio		36-38	%
Flask temperature	Min:	450	°C
	Max:	700	°C
Quenching time without stones in place	Min:	5	min
	Max:	20	min
Quenching time with stones in place		15	min in boiling water
Pickling	H2SO4:	20	%
	Temp:	50	°C
	Time:	50	min