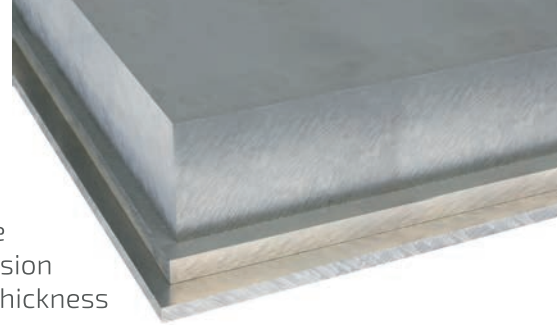




SPECIAL ALLOYS FOR MOULDS

# CERTAL® SPC

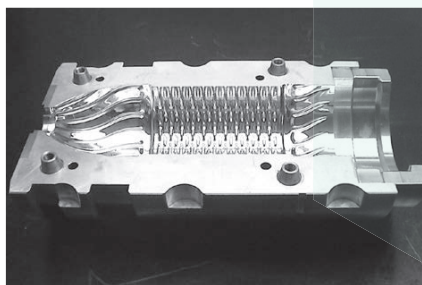
Certal® SPC has been optimized to provide excellent machinability, good dimensional weldability and high mechanical resistance across the entire thickness of the plate. Typical applications include injection and compression moulds for plastics. It is distinguished from Certal® by the availability in thickness over 150mm.



## CHEMICAL COMPOSITION (WEIGHT %)

ELEMENTS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Zr	Ti
Minimum	-	-	0.5	-	2.6	-	4.3	0.15	-
Maximum	0.25	0.35	1.0	0.1	3.7	0.1	5.2	0.25	0.15

Information transcribed from the supplier datasheet.



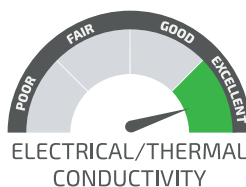
## MAIN CHARACTERISTICS

- Excellent machining
- Good shape stability and high uniform mechanical properties (on plate thickness)
- High thermal conductivity (shorter cycles) and possibility of thicker parts
- Uniform resistance
- It is possible to weld\* (TIG/MIG)

\* Welding for recharging is possible under certain conditions. The reduction of the resistance in the welding area must be considered.

## APPLICATIONS

- Hydraulic distribution blocks
- Injection and compression moulds for plastics
- Injection-blow moulds
- Thermoformed moulds
- End baseboards
- Machine elements
- Moulds for toys and automotive industry
- Industrial tools and related holders
- Mechanical guides





## SPECIAL ALLOYS FOR MOULDS

# MECHANICAL PROPERTIES

MINIMUM GUARANTEED VALUES

ESPESSURAS (de...até)	Rm (MPa)	Rp0.2 (MPa)	A50 (%)
150 - 240 mm	510	440	4
240 - 305 mm	490	430	2

Information transcribed from the supplier datasheet.

TYPICAL MECHANICAL VALUES BY DIFFERENT THICKNESSES

ESPESSURAS (de...até)	Rm (MPa)	Rp0.2 (MPa)	A50 (%)	HB - BRINELL DUREZA
150 - 240 mm	530	460	7	160
240 - 305 mm	520	450	5	140

Information transcribed from the supplier datasheet.

## PHYSICAL PROPERTIES

DENSITY	2.76 g/cm <sup>3</sup>
MODULUS OF ELASTICITY	72 000 MPa
LINEAR EXPANSION COEFFICIENT	23.6 10 <sup>-6</sup> K <sup>-1</sup>
THERMAL CONDUCTIVITY	150 W/mK
ELECTRICAL CONDUCTIVITY	18 - 22 MS/m

## DELIVERY PROGRAM

### PLATES

THICKNESSES (mm)	DIMENSIONS (mm)	PLATE WEIGHT (kg)	STOCK T652
150	3020 x 1520	1900.426	●
160	3020 x 1520	2027.121	●
180	3020 x 1520	2280.511	●
200	3020 x 1520	2533.901	●

Average production weights.

### CERTAL® vs CERTAL® SPC

- Certal® is available up to 150mm thickness
- Certal® SPC is available from 150 mm up to 200 mm thickness