

TVH® TV39 (CuZn39Pb3)

Density 8,46 g/cm³
 Free machining brass

Specifications:

TRAID	TVH®	TV39
D	DIN 1705	CuZn39Pb3
EUR	EN	CuZn39Pb3
GB	BS	CZ121Pb3
USA	UNS	C 38500

Nominal composition:

Cu	57,50 %
Pb	3,30 %
Zn	Rest

PROPERTIES	UNIT	VALUE
Electrical conductivity	MS/m	14.60
Thermal conductivity	W(m*K)	113
Thermal expansion coefficient	(0-300°C) 10 ⁻⁶ /K	21.40
Modulus of elasticity E	GPa	96

MECHANICAL PROPERTIES		
Reference values	From (extruded/soft)	To (hard)
Rm (MPa)	340	600
R _{p0,2} (MPa)	180	480
A ₅ (%)	40	10
HB	90	175

FABRICATION PROPERTIES	
Forming	
Machinability	100%
Capacity for being cold worked	Poor
Capacity for being hot worked	Excellent
Joining	
Resistance welding	Fair
Inert gas shielded	Poor
Arc welding	Poor
Hard soldering	Fair
Soft soldering	Excellent
Surface treatment	
Polishing	Good
Mechanical	Good
Electrolytic	Poor
Electroplating	Excellent

MAIN CHARACTERISTICS

Quite resistant against organic substances as well as neutral or alkaline compounds.

Machining index of 100%.

Particularly suitable for hot stamping when the forged parts are subsequently machined extensively.

Recommended for applications where cold working with little reduction such as knurling is used.

The ductility of this material makes it particularly suitable for the manufacture of wires as well as bars and sections.

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