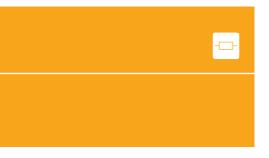
Brand Name	NOVIST	THERM		'	
Material Code				·	
Abbreviation	CuMnN	i 25-10		'	
	nposition (ma es of alloy co		ts) in %.	·	
Cu	Mn	Ni			
Rest	25	10			



Features and Application Notes

NOVISTHERM is especially characterized by a high resistivity. With its high specific electrical resistance, NOVISTHERM closes the gap between Cu- and Ni-based heating conductor alloys.

NOVISTHERM is non-magnetic and possesses a low temperature coefficient and EMF values. The alloy shows better welding properties and workability than Ni-alloys.

NOVISTHERM is suitable for heating wires of any application, also for heating cords and cables. The alloy is well known for heating elements with low conductor temperatures up to 400 °C in non-oxidizing atmosphere.

Many applications can be found in the plastic sealing and cabling industry, where high-prized Ni-based alloys can be replaced.

Due to its low melting point, NOVISTHERM is also proved successfully in powder metallurgical manufacturing processes.

Form of Delivery

NOVISTHERM is supplied in the form of round wires in the range 0.10 to 5.00 mm \emptyset in bare or enamelled condition. The product line includes sheets, ribbons, flat wires, stranded wires and rods.

Electrical Resistance in Annealed Condition

	540	541	535	541	449
±10	90	90	89	90	95
+20 °C and +50 °C 10 ⁻⁶ /K	+20 °C tolerance ±5 %	+100 °C	+200 °C	+300 °C	+400 °C
Temperature coefficient of the electrical resistance at	Electrical resistivity Reference Values	in: μΩ x cm (first line)	and Ω /CMF (second	line)	

Physical Characteristics (Reference Values)

Density at -		Melting point	Specific heat at +20 °C	Thermal conducti- vity at +20 °C	Average linear thermal expansion coefficient between +20 °C and	Thermal EMF against copper at
		•••••			+100 °C	+20 °C
g/cm³	lb/cub in	°C	J/g K	W/m K	10 ⁻⁶ /K	μV/K
8.1	0.291	+940	0.47	12.5	18.5	± 0.5

Strength Properties at +20 °C in Annealed Condition

MPa psi > 0.063 to 0.125 > 0.125 to 0.50 > 0.50 to 1.00	
Tensile Strength ¹⁾ Elongation (L ₀ = 100 mm) % at nominal diameter in mm	



¹⁾ This value applies to wires of 1.0 mm diameter. For thinner wires the minimum values will substantially increase, depending on the dimensions.