Type L Bare Wire

TYPE E (CHROMEL vs Copel) may be used in oxidizing, inert or dry reducing atmospheres, or for short periods of time under vacuum. Must be protected from sulfurous and marginally oxidizingatmospheres. Produces the highest EMF per degree o any standardized thermocouple.

1. Chemical Composition

Material	Chemical composition (%)				
	Ni	Cr	Cu	Mn	Al
LP(Chromel)	90	10			
LN(Copel)	44		Bal.	0.5-1	

2. Physical properties and Mechnical properties

Material	Density(g/cm3)	Melting point(℃)	Tensile Strength(Mpa)	Volume resistivity (μΩ.cm)	Elongation rate (%)
LP(Chromel)	8.5	1427	>490	70.6(20℃)	>25
LN(Copel)	8.8	1220	>390	49.0(20℃)	>25

3. EMF Value range at different temperature

Material	EMF value Vs Pt(μ V)				
	100℃	200℃	300℃	400℃	500℃
LP(Chromel)	6.750~6.970	14.436~14.678	22.711~22.967	31.348~31.628	40.116~40.468
LN(Copel)					

EMF value Vs Pt(μ V)				
600℃	700℃	800℃	1000℃	1100℃
48.887~49.309	57.612~58.100	66.200~66.738		

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