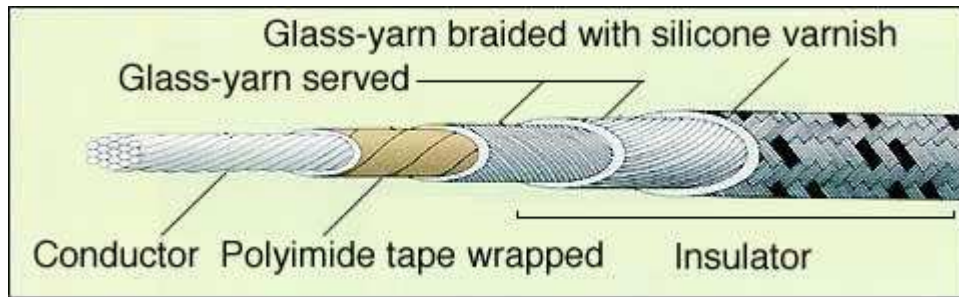


■ Polyimide-tape-wrapped and glass-insulated nickel-clad-copper conductor heat-resistant wires (TN210) ■

Polyimide-tape-wrapped and glass-insulated nickel-clad-copper conductor heat-resistant wire (TN210) is made of nickel-clad-copper wires which are flexible and highly resistant to heat and corrosion, and covered with polyimide-tape and glass fiber. Maximum operation temperature of this series is 220°C.



Construction	
Conductor	Several nickel-clad-copper wires (NPC) are stranded to make a conductor. Construction of the conductor is shown in below table. NPC has lower conductor resistance and more flexibility than nickel wire
Insulator	Conductor is double wrapped with polyimide-tape, double served with glass evenly (if the nominal sectional area of the conductor is 8.0 Sq. or more, braided with glass-yarn instead of having the serving process), braided with glass-yarn, and baked with silicone varnish on the surface to make an insulator.
Color	The standard is two red-spiraled stripes on the white ground.
Application	Widely used as lead wires of electric heaters or wirings in high-temperature equipments where, especially resistance to heat and corrosion is required.
Characteristics	<ul style="list-style-type: none"> - - Smaller in diameter and lighter with the same allowable current, because the volume resistivity is 1/4 of nickel conductor. - Easy to process and wire, because it is softer than nickel conductor. - The thickness is 20-30 times of normal nickel-coated wire (1-5 μm). (Nickel vs. copper area ratio: approx. 28:72.) - The conductivity varies depending on changes in temperature. Even if used continuously under a temperature of 220°C, the conductivity varies only slightly. - The tensile strength varies only slightly even if used under a temperature of 220°C. - Using nickel as the surface material, far more resistant to corrosion than copper wire.

table										
Parts No.	Conductor			Taping thickness	Served-wire shielding thickness	Braided shielding thickness	Finished OD	Conductor resistance	Insulation resistance	Test voltage (AC 1 min.)
	Sectional area mom.	Construction No. of wires/Dia. of elemental wire	OD							
	mm ²	No. of wires/mm	mm							
			mm	mm	mm	mm	mm	Ω /Km	MΩ · Km	V
8451NN00N	0.75	30/0.18	1.1	0.025	0.15	0.3	2.1	29.68	10	1,500
8551NN00N	1.25	50/0.18	1.5	0.025	0.15	0.35	2.6	27.80	10	1,500
8651NN00N	2.0	37/0.26	1.8	0.025	0.15	0.35	2.9	11.53	10	1,500

5651NN00N	3.5	66/0.26	2.4	0.025	0.15	0.35	3.5	6.335	10	1,500
8851NN00N	5.5	35/0.45	3.1	0.025	0.15	0.35	4.2	4.070	10	1,500
8951NN00N	8	50/0.45	3.7	0.025	-	0.6	5.0	2.846	10	1,500
9051NN00N	14	88/0.45	4.9	0.025	-	0.6	6.2	1.622	10	1,500