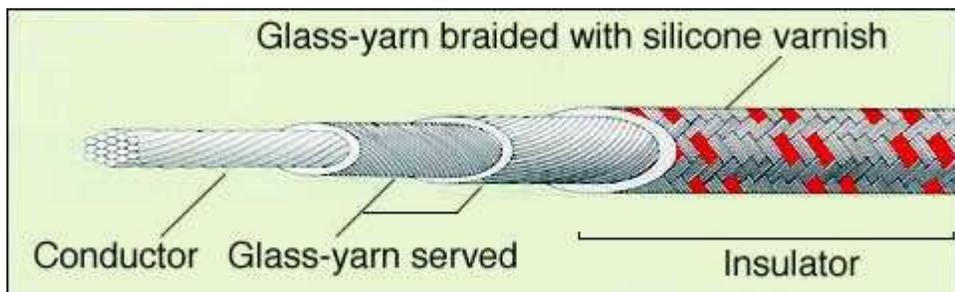


## Glass-insulated nickel-clad-copper conductor heat-resistant wires (TN200)

Glass-insulated nickel-clad-copper conductor heat-resistant wire (TN200) is made of nickel-clad-copper wires which are flexible and highly resistant to heat and corrosion, and covered with 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 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
Characteristics	<ul style="list-style-type: none"> <li>- Smaller in diameter and lighter with the same allowable current, because the volume resistivity is 1/4 of nickel conductor.</li> <li>- Easy to process and wire, because it is softer than nickel conductor.</li> <li>- The thickness is 20-30 times of normal nickel-coated wire (1-5 μm). (Nickel vs. copper area ratio: approx. 28:72.)</li> <li>- The conductivity varies depending on changes in temperature. Even if used continuously under a temperature of 220°C, the conductivity varies only slightly.</li> <li>- The tensile strength varies only slightly when even if used under a temperature of 220°C.</li> <li>- Using nickel as the surface material, far more resistance to corrosion than copper wire.</li> </ul>

table									
Parts No.	Conductor			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 <sup>2</sup>	No. of wires/mm	mm						
	mm <sup>2</sup>	No. of wires/mm	mm	mm	mm	mm	Ω/Km	MΩ·Km	V
8351CN00N	0.5	20/0.18	1.0	0.15	0.35	1.9	29.68	1.0	600
8451CN00N	0.75	30/0.18	1.1	0.15	0.35	2.0	29.68	1.0	600
8551CN00N	1.25	50/0.18	1.5	0.15	0.35	2.5	27.80	1.0	600
8651CN00N	2.0	37/0.26	1.8	0.15	0.35	2.8	11.53	1.0	600

5651CN00N	3.5	66/0.26	2.4	0.15	0.35	3.4	6.335	1.0	600
8851CN00N	5.5	35/0.45	3.1	0.15	0.35	4.1	4.070	1.0	600
8951CN00N	8	50/0.45	3.7	-	0.6	4.9	2.846	1.0	600
9051CN00N	14	88/0.45	4.9	-	0.6	6.1	1.622	1.0	600
9151CN00N	22	7/20/0.45	7.0	-	0.6	8.2	1.017	1.0	600