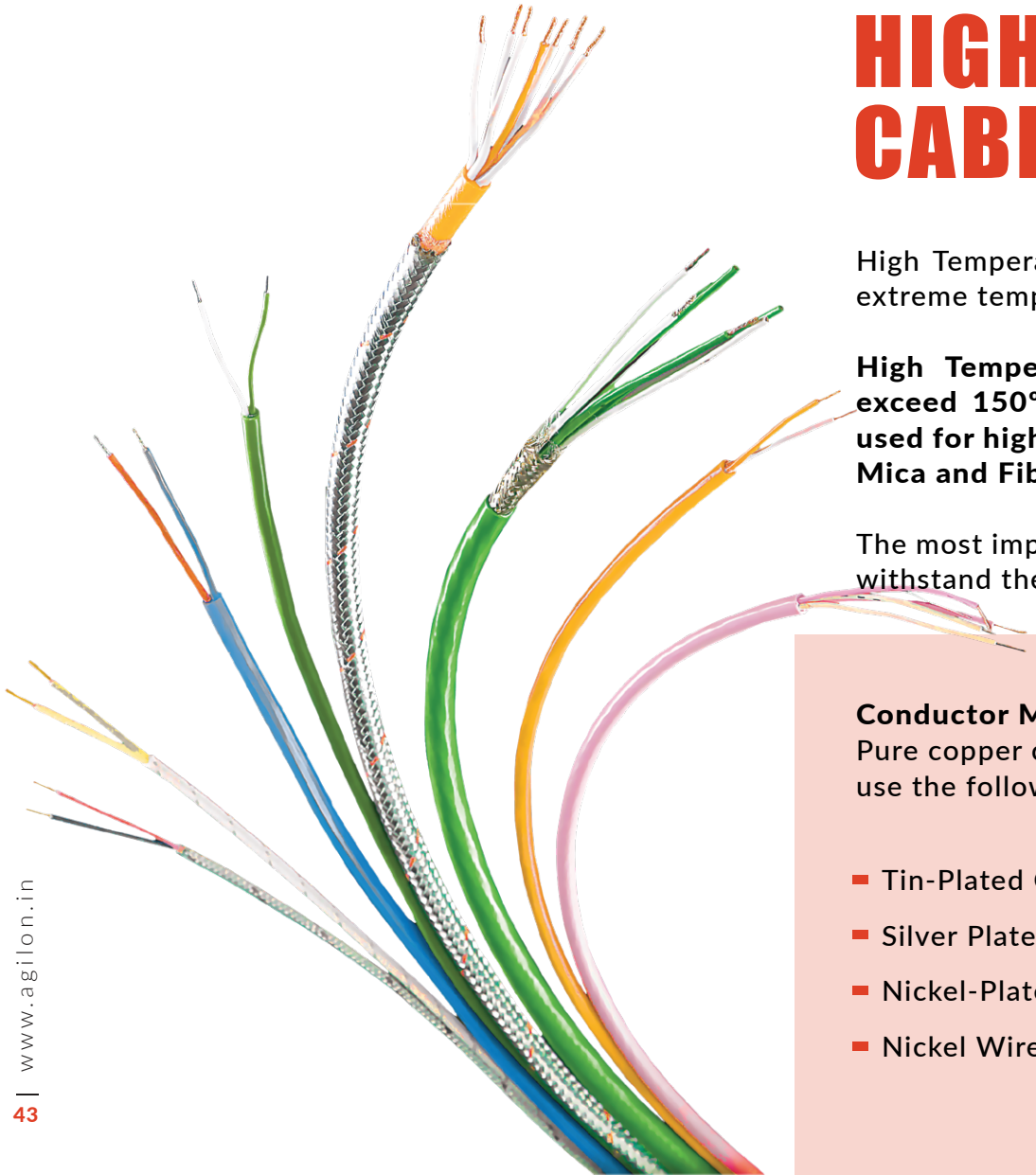


HIGH TEMPERATURE CABLES

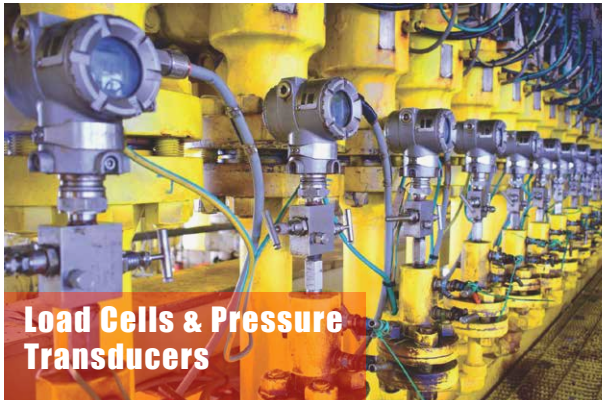
High Temperature Cables are suitable for applications where resistance to extreme temperatures is required.

High Temperature Cables are for applications where temperatures exceed 150°C in normal use. Common insulation and jacket materials used for high temperature cables include Silicone, ETFE, FEP, PFA, PTFE, Mica and Fiberglass.

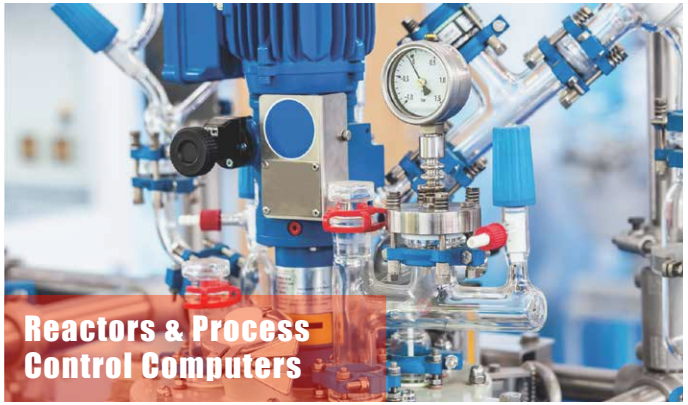
The most important characteristic of high temperature cables is the ability to withstand the maximum operating temperature at the point of application.

Conductor Materials
Pure copper corrodes more easily at high temperatures, so high temperature cables use the following heat-resistant conductor materials:

- Tin-Plated Copper: Suitable for moderately high temperatures upto 150°C
- Silver Plated: Temperature upto 200°C
- Nickel-Plated Copper: For high temperatures upto 450°C
- Nickel Wire: Able to withstand very high temperatures above 450°C



APPLICATIONS



Motors Auto Stress Boilers | Sensors | High Voltage Furnace Equipment | Transformers | Soot Blowers/ Boiler Rooms | Electronic Control Equipment

Navy | Diesel Locomotives | Refineries | Ladle & Pit Cranes | Electrical Heating Ovens / Dryers | Ground Control | Ballast's | Rheostats | Rectifiers

Types of High Temperature Wire

Silicone Insulated Wires (180°C)

You can use silicone insulated single conductors for operating temperatures upto 180°C. Silicone can withstand 250°C for a short time and it has good low-temperature properties down to -25°C. This material is self-extinguishing and has good flame-retardant properties.

Thermocouple Wires

Thermocouple Wires use carefully selected alloys to form a thermoelectric junction that is sensitive to temperature. Each wire is a different material. Standard thermocouple types include types E, J, K, N, R and T. The only application for these cables is measuring temperature and you must use a compatible extension wire if there is a need to extend the thermocouple wire from the point of measurement to the measuring instrument.

Depending on the temperature you can use thermocouple wires for measurements between -270°C and 1260°C.

High Temperature Mica Glass Wires (450°C)

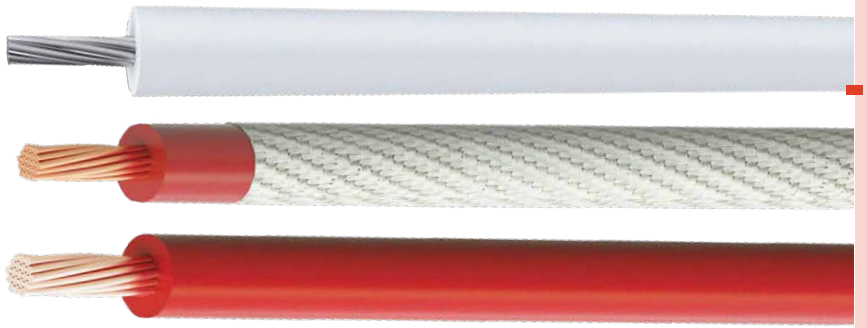
Mica is an excellent high temperature insulator. Mica glass insulation has multiple layers of a mica and glass composite tape usually covered by a fiberglass jacket impregnated with a high temperature saturant. **Mica insulated wire protects cables at temperatures upto 450°C.**

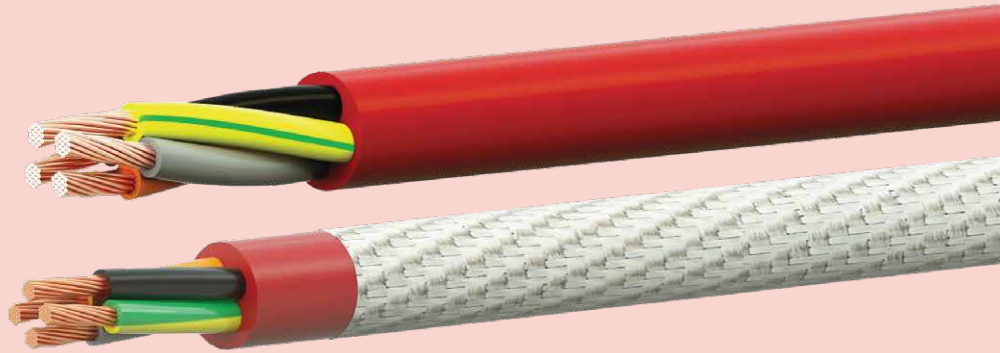
Teflon Glass Glass Teflon (TGGT) Wires (250°C)

You can use this wire continuously at 250°C.

Silicone Single Core Cables (180°C)

- **SiF:** Fine tinned copper wires, class 5, Silicone Insulation
- **SiD:** Solid copper conductor, class 1, Silicone Insulation
- **SiF-GL:** Fine tinned copper wires strands, class 5, Silicone Insulation. Impregnated glass fibre braid.
- **SiF-HT:** Flexible tinned copper wire strands, class 5, Silicone high voltage insulation.
- **SiF-G-Si-HT:** Flexible tinned copper wire strands, class 5, silicone high voltage insulation, glass fibre braid, blue silicone sheath.





Silicone Multicore Core Cables (180°C)

- **SiHF:** Fine tinned copper wire strands with silicone rubber insulation. Cores twisted together. Reddish brown silicone rubber outer sheath.
- **SiHF-C-Si:** Fine tinned copper wire strands with silicone rubber insulation. Cores twisted together. Reddish brown silicone rubber inner sheath or polyester tape. Tinned copper wire braid. Reddish brown silicone rubber sheath.
- **SiHFP:** Fine tinned copper wire strands with silicone rubber insulation. Cores twisted together. Reddish brown silicone rubber sheath. Glass fibre tape with an overall galvanised steel wire / SS Wire braid.

Agilon™

PTFE Single Core Cables

- **Silver / Nickel Plated Copper Conductors, PTFE Insulated.**
  These cables operate upto +200°C or +250°C short term with silver plated copper conductors. Nickel plated conductor versions to work upto +260°C are available to special order.

- **P-Temp upto 260°C**
  Fine nickel plated copper wire strands to IEC 60228 Class 5 or finer. White PTFE insulation. Mica tape, impregnated and varnished glass fibre braid.

- **G-Temp upto 600°C**
  Pure nickel strands, double glass yarn lapped, impregnated, glass braided, double silicone varnished.

PTFE Multicore Cables

Multicore and screened or braid armoured versions can also be manufactured in many sizes and styles.

Extreme Temperature Cables -190°C to +1400°C

- Singlecore, multicore, pair and triple configuration cables can be supplied to meet even the most extreme temperature conditions.

- Variation includes fluoropolymer based cables utilizing PFA and PTFE materials through glass and ceramic woven or braided cables offering temperature span between -190°C to +1400°C.

- Thermocouple Type K / J / L / T / E / N Cables are also available.

Any specification / size can be provided / designed as per customers' requirement.

RANGE / TYPE

Our range of flexible ETFE, FEP, PFA, PTFE, silicon equipment wires are suitable for high / low temperature, low smoke, flame retardant and also halogen-free applications.

THE SINGLE CORE CHOICE STRETCHES FROM 36 AWG ULTRA-THIN WIRES TO 400 SQ.MM

MULTICORE OPTIONS ARE AVAILABLE UPTO 240 SQ.MM

This range enable us to offer cables used from the deepest ocean to the outer space.