There are many types of cables, such as: high temperature silicone rubber cable, power cables, low temperature resistant cables, flat cables, etc., because of the different functions of the cables, they are also used in different industries. Each construction unit will more or less involve the use of high-temperature cables. Obviously **temperature resistant cable** operate at high temperatures, but do you know how high the temperature is in general? Let's understand what a high temperature cable is.
Long-term continuous working temperature of 125 degrees, 135 degrees, 150 degrees, 180 degrees, 200 degrees, 250 degrees and 250 degrees or more is called high temperature resistant wire and cable. At present, radiation cross-linked polyolefin, silicone rubber, fluororesin, Wire and cable such as polyimide, mica, magnesium oxide, etc. Heat-resistant wires and cables and high-temperature wires and cables need to meet two requirements. One is the high ambient temperature of the wire and cable, and the cable can normally transmit signals or electric energy under high temperature for a long time; the other is the power transmission cable, which is mainly for increasing the interception capacity. Ordinary cables are prone to insulation aging and scorching at high temperatures, and the use of cables loses performance, is damaged and cannot be used. The high temperature cable can work normally and stably under the rated high temperature, the signal or power transmission performance is not affected, and the cable has a long service life. This type of functional cable is the most common and most common type of high-temperature cable, and its use characteristics are also the easiest to understand.

The load-increasing high-temperature cable is mainly developed to reduce the outer diameter and weight of the cable under the prerequisite of current-carrying, and to develop towards light weight. Generally speaking, the higher the working temperature of the cable, the larger the current carrying capacity of the same cable. In occasions such as airplanes and automobiles, weight reduction is of great significance, and the use of high-temperature cables greatly reduces the cross-section. When the operating temperature rises from 90°C to 155°C, the current-carrying capacity increases by 50%. Under the same current-carrying capacity, the weight of the cable is reduced by half and the cost is also reduced. Of course, while the current is high, the power loss of most insulating materials will also increase. Therefore, it can be said with certainty that the cost of high temperature resistant wires and cables is much higher than that of ordinary wires and cables.

High temperature resistant cables are mainly divided into two categories. Namely fluorine plastic material and silicon rubber material. Of course, there are other thermal insulation materials, but these two are the most common ones currently on the market.

There are two main types of **temperature resistant cable**

1. Fluoroplastic wires and cables are: polyperfluoroethylene propylene (FEP, commonly known as F46), polytetrafluoroethylene (PTFE), ethylene-tetrafluoroethylene copolymer (ETFE, commonly known as F40), polyvinylidene fluoride (PVDF) One kind. Fluoroplastic cables mainly include: high temperature communication cables, high temperature resistant lead wires and installation wires, high temperature compensation wires and industrial high temperature resistant power and control signal cables.

2. Silicone rubber insulated wires and cables: Silicone rubber has better heat resistance. The commonly used silicone rubber for wires and cables is methyl vinyl silicone rubber, and the operating temperature range is -40°C to 180°C. Silicone rubber has good bending function and low temperature function, and is not easy to be damaged and cracked. These functions are not available in general high temperature cables. Therefore, silicone rubber cables have a wide range of applications and are already a bright spot of high temperature cables. Silicone rubber cables are used in high-temperature mobile cables, flexible power cables, motor lead wires, and high-temperature operating places in low-temperature environments.

The types of **temperature resistant cable** described above are distinguished according to the insulation material. Of course, some special high temperature cables are made of special materials, such as nickel wire high temperature cables, which can withstand up to 1000 degrees. What we have summed up are only two common models on the market, welcome to communicate.