

ULTRA-HIGH-TEMPERATURE-RESISTANT FLUOROELASTOMER MATERIAL AND MARINE MEDIUM-VOLTAGE SUPER FIRE-RESISTANT CABLE COMPRISING SAME

ABSTRACT

Disclosed are an ultra-high-temperature-resistant fluoroelastomer material, and a marine medium-voltage super fire-resistant cable comprising same, comprising: 100 parts of fluoroelastomer; 15 parts of carbon black; 3 parts of a peroxide curing agent; 4 parts of an auxiliary crosslinking agent; 3-5 parts of an acid acceptor; 1-2 parts of an auxiliary acid acceptor; 5 parts of a filler; and 2-6 parts of a processing aid. The fluoroelastomer comprises a first fluoroelastomer and a second fluoroelastomer, the first fluoroelastomer and the second fluoroelastomer both being configured as terpolymer fluoroelastomers. The first fluoroelastomer has a fluorine content greater than or equal to 70%, and the second fluoroelastomer has a fluorine content of 60%-65%. The peroxide curing agent is diphenylethane peroxide. The fluoroelastomer comprises the first fluoroelastomer and the second fluoroelastomer, the first fluoroelastomer having a fluorine content greater than or equal to 70% and the second fluoroelastomer having a fluorine content of 65%-70%. Mixing the two fluoroelastomers can improve mechanical properties while ensuring heat resistance, and compared with using only high-fluorine-content fluoroelastomer, the cost is more economical.

(Fig. 1)