ABSTRACT

A submarine cable and a preparation method and application thereof are provided. The submarine cable includes an insulation layer (4), and the material of the insulation layer (4) includes polyethylene, a vulcanizing agent and an antioxidant, where the vulcanizing agent is dicumyl peroxide, the antioxidant is pentaerythritol tetraester, and a mass ratio of the polyethylene, the vulcanizing agent and the antioxidant is 100: (0.8-2.5): (0.1-0.4). An insulation material is prepared by using the specific vulcanizing agent and antioxidant, and compared with conventional insulation materials in the prior art, its operating temperature is increased from 90℃ to 105℃, thereby significantly enhancing the reliability, stability and transmission capacity of the submarine cable.

Fig. 1