

ABSTRACT

A non-metallic armored submarine cable, where the submarine cable includes a central cable consisting of one or more electric units, an armoring layer and an outer cladding layer, the armoring layer is twisted around the outside of the central cable, the outer cladding layer is sleeved around the outside of the armoring layer, and the armoring layer is formed by twisting a plurality of round or flat non-metallic armoring elements and/or a plurality of armoring metal wires, and when the non-metallic armoring element is round, the non-metallic armoring element consists of a non-metallic rod and an outer sheath extruded and wrapped outside the non-metallic rod, or consists of a central rod body composed of a plurality of stacked non-metallic rods and an outer sheath extruded and wrapped outside the central rod body, and when the non-metallic armoring element is flat, the non-metallic armoring element consists of a plurality of non-metallic rods and an outer sheath extruded and wrapped outside the non-metallic rods. The present invention solves a difficult problem that the weight of the submarine cable and the force borne during vertical laying and installation of the submarine cable are large under a condition of a great water depth, achieve a lighter weight of the submarine cable while ensuring the mechanical properties of the deep submarine cable, and beneficial to ensuring laying construction and operation safety of the submarine cable.

FIG. 1