

Fully Dry, Central Tube-Type Air Blown Micro Optical Fiber

ABSTRACT

The present invention is related to an all-dry central tube air blown micro optical cable. The cable consists of an outer sheath and a loose tube which is covered in the outer sheath and inside which the fibers are set, and is characterized in that the water-blocking yarns are coated inside the loose tube and the longitudinal grooves are provided in the outer surface of the outer sheath circumferentially. Compared with conventional cables, the cable according to present invention has a smaller diameter and the less weight, and can be installed in the plastic tubes of 5/3.5 mm or even less at a longer distances. The longitudinal grooves in the outer surface of the outer sheath are not only helpful for the stripping of the optical cable, but also reduce the friction between the optical cable and the wall of the tube in the process of air blown, thereby facilitate the air flow. Furthermore, the use of the sheath material with lower coefficient of friction reduces the drag force of air blown, thus further increases the laying distances of the optical cable. The use of the water-blocking yarns avoids cleaning in the process of fiber splicing, thus greatly reduces splicing time and improves the efficiency of constructions. The cable according to present invention occupies less duct resources and lowers the cost of constructions.

Fig. 1