

ICS 33.180.10

CCS M33



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/Z 41287.1-2022

**Optical fiber telecommunication cable for use in premises
cabling - Part 1: Optical fibre cables for duct and directly buried
application**

通信用建筑物引入光缆 第1部分：管道和直埋用引入光缆

Issued on: March 9, 2022

Implemented on: March 9, 2022

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

Preface	III
Introduction	IV
1 Scope	1
2 Normative references	1
3 Terms and Definitions	2
4 Category	2
5 Structure and Materials	3
6 Performance requirements and tests	4
Appendix A (Informative) Optical Fiber Characteristics Classification Code	13
Appendix B (Informative) Coefficient of Kinetic Friction of Optical Cable	15
Reference	16

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules of Standardization Documents" Drafting. This document is part 1 of GB /Z 41287 "Introduction to Optical Cables for Communication Buildings". GB /Z 41287 has published the following parts.

1. Drop cables for pipelines and direct burial;

2. Self-supporting overhead drop cables. Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents. This document is proposed and managed by the Ministry of Industry and Information Technology of the People's Republic of China. This document is drafted by: Chengdu Datang Cable Co., Ltd., Chengdu Tairui Communication Equipment Testing Co., Ltd., Sichuan Huiyuan Optical Communication Co., Ltd. Company, YOFC Optical Fiber and Cable Co., Ltd., Jiangsu Hengtong Optoelectronics Co., Ltd., Fiberhome Technology Group Co., Ltd., Jiangsu Junzhi Technology Co., Ltd., China Academy of Information and Communications Technology, Chengdu Hengtong Optical Communication Co., Ltd., Jiangsu Yongding Co., Ltd., Telecom Science and Technology Research Institute Co., Ltd., Tongding Internet Information Co., Ltd. The main drafters of this document. Huang Kun, Peng Yuan, Xue Mengchi, Liu Tai, Lv Jie, Xu Jiangbo, Song Zhituo, Shi Bin, Luo Yi, Xiong Zhuang, Liu Xiangrong, Wang Yaoming, Chen Xiaohong, Wang Zemin, Yuan Fan, Li Jichao, Gao Hua, Xiao Rengui, Guo Zhihong.

The building drop cable is the access network from the user introduction point to the user termination point (such as the campus distribution frame, building distribution frame, etc.) or the user. A section of optical cable between optical nodes is often drawn from outdoors and terminated indoors. At present, there are different types of fiber optic cables in buildings under different laying methods. Structural and performance requirements. GB /Z 41287 "Introduction to Optical Cables for Communication Buildings" is divided into the following two parts according to the laying method of optical cables.

1.Drop cables for pipes and direct burial. The purpose is to standardize communication buildings with pipelines and direct burial Structure and performance requirements of drop cables.

2.Self-supporting overhead drop cables. The purpose is to standardize the introduction of communication buildings with self-supporting overhead laying. The structure and performance requirements of the incoming optical cable. Building drop cables for communication Part

1 Scope

GB/Z 41287.1-2022 is the Chinese national standard on optical fiber telecommunication cable for use in premises cabling - part 1:optical fibre cables for duct and directly buried application, in the field of telecommunications and audio-video engineering. The /Z suffix marks it as a guiding technical document: it does not prescribe requirements that can be certified against, but sets out the technique, the method or the state of the art that the standards bodies recommend following. It was issued on 9 March 2022 by the State Administration for Market Regulation; Standardization Administration of China. As a guiding technical document it carries no separate date of entry into force: it applies from publication. Classification: ICS 33.180.10, CCS M33. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

22.Measurement methods for dimensional parameters and length of test procedures

12.Single insulated wire and cable fire Test method for 1kW premixed flame for vertical flame spread test

35.Vertically installed bundled wires Cable flame vertical spread test class C

3.Mechanical physics performance test method YD/T 837.4-1996 Test method for copper core polyolefin insulated aluminum-plastic composite sheathed urban communication cables Part

4.Environmental performance experiment method YD/T 901-2018 Layer twist filled outdoor

optical cable for communication YD/T 908 Optical Cable Model Nomenclature YD/T 979
Optical fiber ribbon technical requirements and inspection methods YD/T 1113
Halogen-free and low-smoke flame-retardant materials for communication cables and
optical cables YD/T 1258.1-2015 Indoor Optical Cable Series Part

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 6995.2 Wire and Cable Identification Marking Method Part

GB/T 15065 Black polyethylene plastic for wire and cable

GB/T 15972 (all parts) Optical fiber test method specification

GB/T 15972.22-2008 Specification for test methods for optical fibers - Part

GB/T 18380.12-2008 Fire test of cables and optical cables under flame conditions - Part

GB/T 18380.35-2008 Fire test of electrical and optical cables under flame conditions - Part

GB/T 26572-2011 Limitation Requirements for Restricted Substances in Electrical and Electronic Products

GB/T 29233-2012 Single-mode communication outdoor optical cable for pipeline, direct burial and non-self-supporting overhead laying YD/T 629.1 Monitoring method of optical fiber transmission attenuation change Transmission power monitoring method YD/T 629.2 Monitoring method of optical fiber transmission attenuation change Backscatter monitoring method YD/T 837.3-1996 Test method for copper core polyolefin insulated aluminum-plastic composite sheathed urban communication cables Part