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

GB/T 15972.53-2008

Replacing GB/T 15972.5-1998

**Specifications for optical fibre test methods -- Part 53:
Measurement methods and test procedures for environmental
characteristics -- Water immersion**

光纤试验方法规范 第53部分：环境性能的测量方法和试验程序 浸水

(English Translation)

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Foreword

GB/T 15972 "fiber test methods" consists of several parts, its expected international standard and the corresponding structure and replaced by national standards Quasi is.

--- Part 10 - Part 19. Measurement methods and test procedures - General (corresponding to IEC 60793-1-10 to IEC 60793-1-19;

Replacing GB/T 15972.1-1998);

--- Part 20 - Part 29. dimensional parameters measuring methods and test procedures (corresponding to IEC 60793-1-20 to IEC 60793-1-29; instead of GB/T 15972.2-1998);

--- Part 30 - Part 39. Mechanical properties measurement methods and test procedures (corresponding to IEC 60793-1-30 to IEC 60793-1-39; instead of GB/T 15972.3-1998);

--- Part 40 - Part 49. transmission characteristics and measurement methods and test procedures for optical characteristics (corresponds to IEC 60793-1-40 IEC 60793-1-49; instead of GB/T 15972.4-1998);

--- Part 50 - Part 59. Environmental Performance Measurement methods and test procedures (corresponding to IEC 60793-1-50 to IEC 60793-1-59; instead of GB/T 15972.5-1998).

Wherein the GB/T 15972.5 x consists of the following components.

--- Part 50. Environmental Performance Measurement methods and test procedures --- constant heat;

--- Part 51. Environmental Performance Measurement methods and test procedures --- dry heat;

--- Part 52. Measurement methods and test procedures for environmental characteristics --- temperature cycles;

--- Part 53. Measurement methods and test procedures for environmental characteristics --- flooding;

--- Part 54. Measurement methods and test procedures for environmental characteristics --- gamma irradiation.

This section GB/T 15972 Part 53. The partial modification of international standards Electrotechnical Commission IEC 60793-1-53.

2001 "fibers - Part 1-53. Measurement methods and test procedures --- immersion" (in English).

This part of IEC 60793-1-53:2001 The main differences are as follows.

--- From the scope of application of fiber A1a class to class to class A1 A1d fiber, B1 to B4 class B to class fiber type optical fiber;

--- Minimum bend diameter should be greater than 150mm to 150mm diameter round and round;

--- To test before and after the average peel strength fiber coating to be measured on the fiber coating stripping force measurement;

--- Sample should be restored to the standard should be more than 12h in GB/T 15972.10-2008 specified under standard atmospheric conditions specified Under atmospheric conditions recover more than 12h.

For ease of use, to IEC 60793-1-53:2001 This section also made the following editorial changes.

--- According to China standard formatting and presentation requirements for some content arrangement has been adjusted, remove "Chapter 8";

--- "This part of the IEC 60793" with the words "GB/T 15972 in this section";

--- For other international standard IEC 60793-1-53 has been modified reference adopted as our standard, GB/T 15972.53 cited the use of these national standards or industry standard in place of the corresponding international standards.

This section proposed by the People's Republic of China Ministry of Information Industry.

This part of the jurisdiction of the China Communications Standards Association.

This section is drafted. Wuhan Research Institute of Posts and Telecommunications.

4 Sample and Sample Preparation

Attenuation measurement repeatability, the fiber sample length to achieve the required fiber for A1 class should be at least 1000m, the class B fiber to be Least 2000m. Exposed to the outside of the tank test optical fiber should be as short as possible, if the exposed part exceeds the total length of the sample 10%, are advised to record instructions.

There should be no impact on the fiber under test conditions to cause harm in the process of preparing a sample of. Unless otherwise specified in the detail specification, Optical fiber sample should be loose around into a circle, the fiber ends of the sample exposed to the water outside. The sample was placed vertically or horizontally, in order to avoid the impact of any macro bend, straight cruising Diameter should be greater than 150mm. Exposed to the water outside the fiber length should be long enough to be able to before and after the test to make any physical inspection.

In order to accomplish the desired mechanical properties measured after comparison test, comparing the measured length of the sample prior to testing should be removed.