

RTS Special Optical Cable Standard



AI Overview

RTS (Rated Tensile Strength) defines the maximum load an optical cable can withstand before breaking, ensuring structural integrity and safe operation under mechanical stress. Overview of RTS in Optical Cables RTS, or Rated Tensile Strength, is a critical parameter for optical cables, particularly in All-Dielectric Self-Supporting (ADSS) cables and specialized reeling cables like the RHEYFIRM® RTS series. It represents the maximum load a cable can endure before failure, determined through standardized testing, and is essential for assessing the cable's ability to withstand its own weight and additional environmental loads such as wind, ice, or torsional stress.

Key Features of RTS Special Optical Cables

- Construction:** RTS-rated cables, such as the RHEYFIRM® RTS, typically include multiple layers for mechanical and environmental protection: Conductors and insulation with semi-conductive layers, Protective earth conductors, Integrated optical fibers, Reinforced inner and outer sheaths for extreme mechanical stress.
- Mechanical Performance:** These cables are designed for high-speed reeling, torsional stress, and multi-plane deflection, making them suitable for Ship-to-Shore cranes, Rail Mounted Gantry cranes, mining equipment, and stacker reclaimers.
- Environmental Resistance:** RTS cables are oil, moisture, UV, and ozone resistant, and flame-retardant according to IEC 60332-1 standards, allowing for both indoor and outdoor applications.
- Relationship Between RTS and MAT** Maximum Allowable Tension (MAT) is the maximum tension a cable can safely experience under designed operational conditions without damaging the fibers. Typically, MAT is about 40% of RTS, providing a safety margin to prevent fiber strain or breakage during installation and operation. This ratio ensures that cables maintain performance under environmental stresses while avoiding excessive sag or tension.
- Standards and Compliance** RTS-rated optical cables are designed in accordance with international standards, including IEC 60794-1-1 for optical fiber ca...

Article Content

Handbook Optical fibres, cables and systems

It is an honour to present you with the latest version, which is another example of how ITU-T is bridging the standardization gap between developed and developing nations. I trust that this manual will be a

RTS Gen 6 Survey Multiplexer Overview

RTS Gen6Mux Produktark 2023 Org (1) - Free download as PDF File (.pdf), Text File (.txt) or read online for free. The RTS Gen 6 Mux is the next generation

RHEYFIRM® (RTS) (N)TSCGEWTOEUS OFE Cable Explained:

This specific German standard outlines the requirements for cables used in rolling and trailing applications. Meeting this standard means the cable has been tested for: Mechanical stability under

PDF document

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OPGW Cable Specifications

Temperature Installation Range: Transportation and Operation Remarks: All Sizes and Values are Nominal Values 1 / 24 - Tubes / Fibers of Tube M92 - Supporting Cross Section R55 - Rate Tensile

Why are MAT and RTS important for ADSS?

The importance of Rated Tensile Strength (RTS) and Maximum Allowed Tension (MAT) in All-Dielectric Self-Supporting (ADSS) cables cannot

Main Technical Parameters of ADSS Fiber Cable

For the optical cable industry, if the ratio of RTS/MAT (equivalent to the safety factor K of the overhead line) is inappropriate, even if a lot of nylon is

RHEYFIRM (RTS) (N)TSCGEWTOEUS OFE

Cable characteristics Mechanical properties ... Chemical properties 72 part 803 and DIN EN 60811-2-1. Fo indoor and outdoor applications.

Why are MAT and RTS important for ADSS?

Definition: RTS, also known as ultimate tensile strength, is the maximum load that a cable can withstand before breaking. It is determined

IEC 60794-1-1:2023

The object of this document is to establish uniform generic requirements for the geometrical, transmission, material, mechanical, ageing (environmental exposure), climatic and electrical

The occ wire

Our new RTS and RTC fiber enclosure updates, and what they mean for you. OCC recently debuted our newly redesigned fiber termination enclosures with a fresh

RTS Series

These new fiber optic enclosures allow for easier terminations, greater capacity and uncomplicated cable management. Fabricated from 16 gauge steel to withstand

C111654A.dft

OPTICAL CABLE CORPORATION'S, RTS2U SERIES LOW PROFILE FIBER OPTIC CROSS CONNECT ENCLOSURES PROVIDE FIBER MANAGEMENT, CONNECTIVITY, AND

Technical Parameters of ADSS Fiber Optic Cables

It means that the optical cable allows short-term overload, and the optical fiber can withstand strain within a limited allowable range. Generally, the

Digital matrix | RTS Intercoms

The RTS family of digital intercom matrices is the most extensive, widely used line of intercoms in the world. From the top-of-the-line ADAM matrix, available in sizes

AN-740: Coupler Isolation in

Because the RS-232 standard is typically used as an intersystem connection, isolation between the bus and each system connected is critical. Digital isolation provides crucial isolation and protection from

COMPLETE, INNOVATIVE AND RELIABLE CABLE SOLUTIONS

Nexans expertise: d range of high quality cables for state-of-the-art mate Products suitable for high moving speed and acceleration Customised hybrid cables, including control/ monitoring cores and

RHEYFIRM®(RTS) (N)TSCGEWTOEUS Cable

Flexible reeling cable for energy supply. Especially for high and extreme mechanical stress, e.g. torsional stress and high reeling speed. For

RHEYFIRM®(RTS) (N)TSCGEWTOEUS OFE

Marking RHEYFIRM (RTS) (N)TSCGEWTOEUS OFE Number of cores – cross-section Voltage – NEXANS – year Core Identification Split protective earth cores

Why are MAT and RTS important for ADSS? Josefina Zhao Fiber Optic ...

Conclusion RTS and MAT are vital for: Ensuring Structural Reliability: They help in designing cables that can withstand environmental stresses without failure.

RHEYFIRM®(RTS) (N)TSCGEWTOEUS OFE

These new fiber optic enclosures allow for easier terminations, greater capacity and uncomplicated cable management. Fabricated from 16 gauge steel to withstand

Main Technical Parameters of ADSS Fiber Cable

Also known as special use tension, it refers to the maximum tension that the optical cable is subjected to when it is possible to exceed the design

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.tomor.eu>

Email: info@tomor.eu

Phone: +49 69 2381 5497

Address: Am Hauptbahnhof 10, 60329 Frankfurt am Main, Germany

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