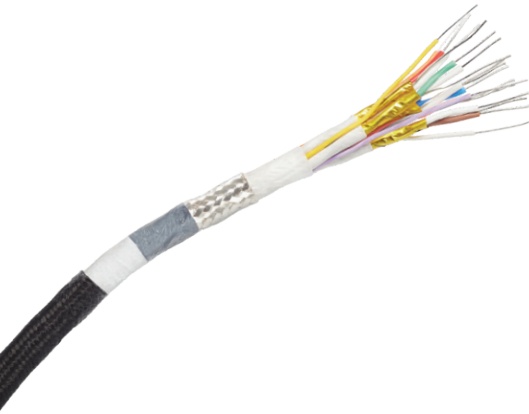


GORE® Abrasion Resistant Cable Jacket



Engineered with a revolutionary fluoropolymer fiber material, Gore's cable jacket is proven to meet new stringent industry standards for durability without sacrificing size, weight or electrical performance (Table 1).

This rugged cable jacket is extremely abrasion resistant and meets EN3475-503 requirements. It eliminates the need for additional protective sleeving now required for copper cables installed in seats. Our state-of-the-art cable technology is thinner, lighter and more flexible with tighter bendability for straightforward routing and expedited installation in narrow seat configurations.

GORE® Abrasion Resistant Cable Jacket ensures all-around, lifetime mechanical protection and is ideal for packaging copper cables that support the latest standardized high data rate protocols such as HDMI and more.

Standards Compliance

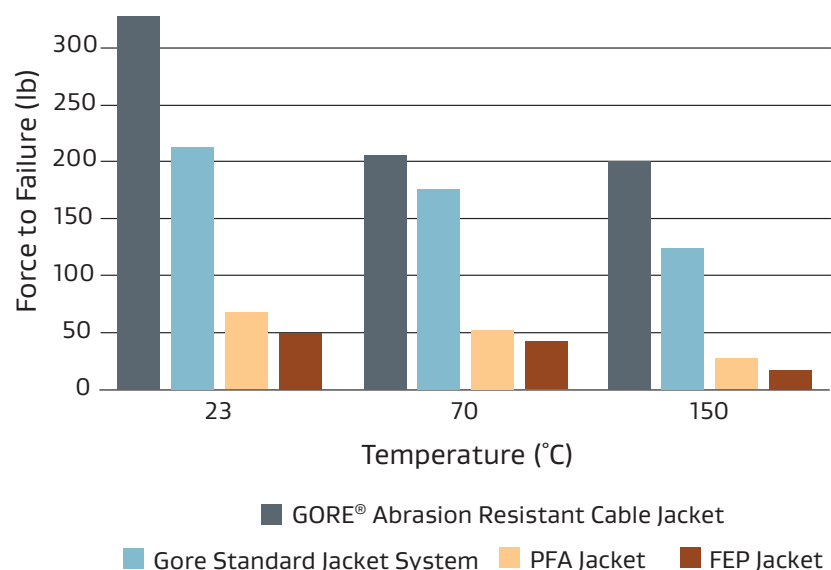
- ABD0031 (AITM 2.0005); BSS7230; FAR Part 25, Appendix F, Part I: Flammability
- ABD0031 (AITM 3.0008B); BSS7238; FAR Part 25, Appendix F, Part V: Smoke Density
- ABD0031 (AITM 3.0005); BSS7239: Toxicity
- EN3475-503: Test Methods for Scrape Abrasion
- SAE AS4373™: Test Methods for Insulated Electric Wire (Contact Gore for available data)

Proven Superior Cut-Through Resistance

Using SAE AS4373, Method 703, Gore compared 100-ohm quadrx cables packaged with 4 different jacket types. Results indicated that GORE® Abrasion Resistant Cable Jacket drastically outperformed PFA and FEP materials for superior cut-through resistance at high temperatures (Figure 1).

Testing proved that our pioneering cable jacket can tolerate extreme operational conditions and complex routing without cracking or splitting. They ensure copper wires transmit data and video reliably in the intended application.

Figure 1: Cut-Through Resistance at High Temperatures



GORE® Abrasion Resistant Cable Jacket

Table 1: Cable Properties

Typical values are based on the 2.0 version of GORE® HDMI Cables packaged with GORE® Abrasion Resistant Cable Jacket.

Electrical

Property	Value
Signal Transmission Speed Gb/s	Up to 18
Standard Impedance Ohms	100 ± 10
Typical Operating Voltage V	< 15
Nominal Velocity of Propagation %	80
Nominal Time Delay ns/m (ns/ft)	4.10 (1.25)
Capacitance pF/m (pF/ft)	230.0 (70.0)
Maximum Skew Within Pair ps/m (ps/ft)	15.0 (4.6)
Dielectric Withstanding Voltage Vrms	
Conductor-to-Conductor	1500
Conductor-to-Shield	1000

Mechanical / Environmental

Property	Value
Jacket Material	Engineered Fluoropolymer Fiber Braid
Jacket Color	Black
Conductor	Silver-Plated Copper or SPC Alloy
Conductor Color-Coding	High-Speed Pairs: Blue/White, Brown/White, Green/White, Red/White Singles: Orange, Violet, White, Yellow Triad: Gray, Pink, Tan
Dielectric Material	Expanded PTFE/PTFE
Cut-Through Resistance kg (lb) (SAE AS4373-703)	
23°C	122 (270)
70°C	73 (160)
150°C	59 (130)
Scrape Abrasion Resistance Cycles (EN3475-503)	
30°C & 55°C / F = 1.2 daN	> 8,000
Temperature Range °C	-65 to +200

Table 2: Cable Characteristics

HDMI 2.0 Version

Gore Part Number	AWG Size (Stranding)	Nominal Outer Diameter mm (in)	Minimum Bend Radius mm (in)	Nominal Weight kg/km (lb/1000 ft)	Typical Insertion Loss dB/30 m (100 ft)			
					825 MHz	2475 MHz	4125 MHz	5100 MHz
RCN9195	Data/Drains/Discrete Pairs: 26 (19/38) Capacitance-Controlled Singles: 28 (19/40)	6.6 (0.26)	13.0 (0.51)	77.5 (52.0)	5.0	12.0	20.0	25.0

Ordering Information

The 2.0 version of GORE® HDMI Cables packaged with GORE® Abrasion Resistant Cable Jacket is available in a standard size (Table 2). To place an order, contact an authorized distributor for in-stock availability at gore.com/cable-distributors.

For more information or to discuss specific characteristic limits and application needs regarding Gore's full portfolio of high-speed data cables packaged with GORE® Abrasion Resistant Cable Jacket, contact a Gore representative today at gore.com/aerospace-defense-contact.

Proven to meet new stringent requirements, Gore's cable jacket with abrasion resistance eliminates the need for protective sleeving now required for copper cables installed in seats.



Information in this publication corresponds to W. L. Gore & Associates' current knowledge on the subject. It is offered solely to provide possible suggestions for user experimentations. It is NOT intended, however, to substitute for any testing the user may need to conduct to determine the suitability of the product for the user's particular purposes. Due to the unlimited variety of potential applications for the product, the user must BEFORE production use, determine that the product is suitable for the intended application and is compatible with other component materials. The user is solely responsible for determining the proper amount and placement of the product. Information in this publication may be subject to revision as new knowledge and experience become available. W. L. Gore & Associates cannot anticipate all variations in actual end user conditions, and therefore, makes no warranties and assumes no liability in connection with any use of this information. No information in this publication is to be considered as a license to operate under or a recommendation to infringe any patent right.

NOTICE — USE RESTRICTIONS APPLY. Not for use in food, drug, cosmetic or medical device manufacturing, processing, or packaging operations.

GORE, *Together, improving life*, and designs are trademarks of W. L. Gore & Associates. © 2023 W. L. Gore & Associates, Inc.

