

MIL-STAR™

GS22759 SPACE-GRADE WIRE



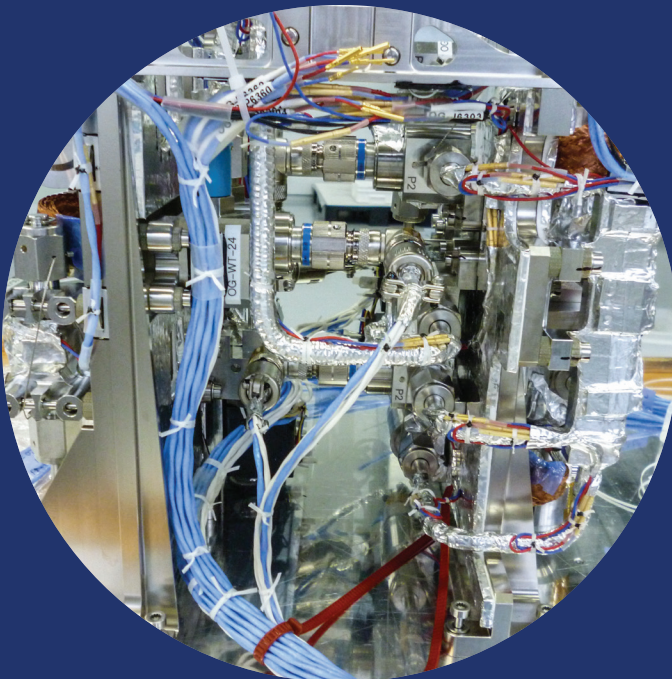
MIL-STAR High-Performance Hookup Wire and Cable Glenair has branded its GS22759 high-temperature aerospace-grade wire, and GS27500 multi-conductor cables for aerospace applications, under the MIL-STAR brand. These discrete wires and cables are built in accordance with SAE specifications with a “GS” leadoff in place of both the base specification and the part number for individual slash sheets.

MIL-STAR is a high-performance, better-than-QPL discrete wire and cable specification unique to Glenair. The brand covers both protected (inside-the-box) hookup wire, high-durability open-loom wiring, and multi-conductor shielded and jacketed M27500-type cable.

M22759 single-ended hook-up wires are the industry standard for inside-the-box mil-aero environments and are optimized for size, weight, high-temperature resistance, and low flame propagation. The hundred-plus variants of AS22759 are organized by conductor material and plating, insulation type, wire gage, and single- or dual-wall.

MIL-STAR™ 22759 BULK WIRE AND OPEN WIRE LOOM HOOKUP ASSEMBLIES FOR SPACE APPLICATIONS

AS22759 high-temp single-conductor 600V military, aerospace, and space-grade wire, crosslinked, lightweight single-wall, dual-wall, and low-fluorine configurations with “better-than-QPL” performance and documentation.



Glenair recommends GS22759 XL-ETFE space-grade wire, available in bulk lengths with no minimum order or cut length limitations. We are also able to supply turnkey interconnect harnesses, factory terminated and tested for immediate application. Shown above: GS22759-33 XL-ETFE (right) and GS22759-51 XL-ETFE low-fluorine (left) open-loom wire assemblies for two mission-critical satellite applications—supplied with rapid turnaround in exact accordance with customer requirements.

Hookup Wire for Space-Grade Harness Assemblies

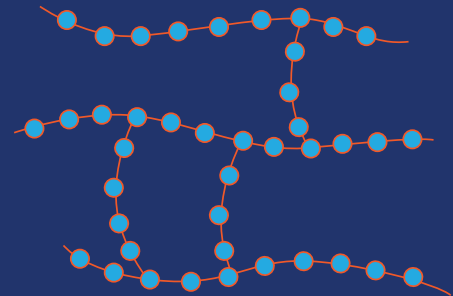
Better-than-QPL performance • QPL-grade batch testing and documentation

MIL-STAR™ ORDER NUMBER	CONDUCTOR	PLATING	INSULATION	INSULATION WEIGHT	AVAILABLE WIRE SIZES	TEMPERATURE RATING
GS22759-33	High-Strength Copper Alloy	Silver	XL-ETFE	Light	30, 28, 26, 24, 22, 20	200°C
GS22759-44	Copper	Silver	XL-ETFE	Light	28, 26, 24, 22, 20, 18, 16, 14, 12	200°C
GS22759-47	High-Strength Copper Alloy	Silver	XL-ETFE	Light	30, 28, 26, 24, 22, 20	200°C
GS22759-51	High-Strength Copper Alloy	Silver	XL-ETFE Low-Fluorine	Light	30, 28, 26, 24, 22, 20	200°C

CROSS-LINKED ETFE INSULATION

Cross-linked insulation (XL) and standard insulation are two types of dielectric materials used in wire and cable manufacturing. Cross-linking provides the following advantages:

- Improved thermal stability
- Chemical / solvent resistance
- Increased mechanical strength
- Laser-markable
- Longer service life



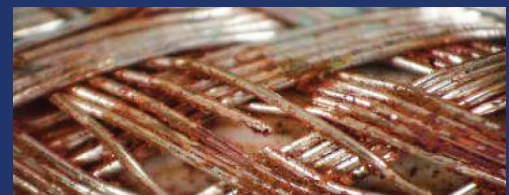
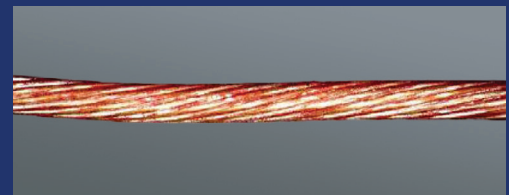
RED PLAGUE

Glenair has been supplying its high-performance wire, cable, and harnesses for space and other harsh application environments for well over 50 years. Our MIL-STAR™ line of high-temperature hookup wire and cable may be supplied in special configurations to combat Red Plague corrosion.

Red Plague is the sacrificial corrosion of copper in a galvanic cell of silver (cathode) and copper (anode), which results in the formation of red cuprous oxide (Cu_2O) and black cupric oxide (CuO). In the presence of oxygen, this Red Plague corrosion can continue indefinitely, consuming conductor material and causing electrical system failures.

Mechanical damage during manufacturing, assembly, or packaging can result in exposure of the copper-silver interface resulting in Red Plague corrosion. High-humidity or high-temperature environments and chemical exposure are other contributing factors. Wire with inadequate silver plating thickness are more likely to develop Red Plague.

Our many years of experience in supplying aerospace-grade wire and cable make us uniquely able to combat this destructive environmental hazard, with mod codes 1304 or 1304 B for thick 80 microinch silver plating.



Images of Red Plague corrosion on wire conductor material and braided shielding courtesy NASA.