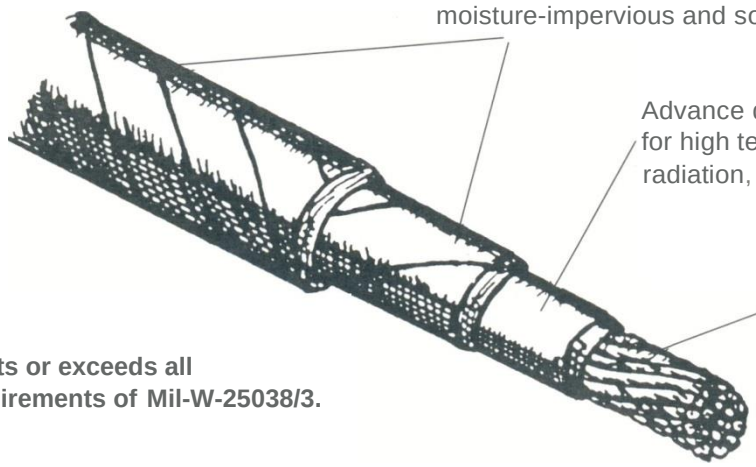
SPECIALTY CABLE CORPORATION

FLIGHT SAFE 260XL® AIRCRAFT WIRE

A high temperature, fire resistant wire where abrasion, moisture, oil and fluid resistance are required. QPL approved in accordance with Mil-W-25038/3.



Wrapped composite tape layer(s) for high temperature operation to provide a moisture-impervious and solvent-resistant abrasion barrier.

Advance design composite of inorganic layers for high temperature operation and resistance to flame, radiation, and cut-through.

Stranded nickel clad copper conductors for flexibility, ease of installation, and high temperature operation. 22 and 20 gauge conductors meet QPL high strength requirements.

Meets or exceeds all requirements of Mil-W-25038/3.

WHAT IT IS

FlightSafe 260XL® is a specially designed non-asbestos high temperature , fire resistant aircraft wire for use under emergency conditions involving possible exposures to flame with temperatures up to 2000° F.

ADVANTAGES

1. Provides critical high temperature fire resistance.
2. All components 260°C rated in continuous service.
3. Retains insulation integrity for a minimum of 15 minutes at 2ooo ·F per M25038.
4. Gives unexcelled resistance to abrasion, moisture, and aviation fluids.
5. Withstands grueling vibration and flexing.
6. Available in multi-conductor, color coded, shielded and jacketed constructions.

OPERATING CHARACTERISTICS PHYSICAL PROPERTIES

Temperature Rating: -54°C to 260°C

Voltage Rating: 600 V. RMS

Cold Bend Qualification Tests: Passes -65°F

Thermal Shock Qualification Test: Passes cycling -67°F to 500° F

Flame Resistance: Integrity of 2000° F for 15 minutes

Fluid Immersion: After conditioning in fluids ranging from aviation gasoline to hydraulic fluid, wire passes bend tests and wet dielectric tests.

Wet Dielectric: Passes 1500 V. RMS after conditioning in 5% NaCl solution

CONSTRUCTION SPECIFICATIONS

Conductors: 27% nickel-coated copper per ASTM 8355 concentric stranding per Mil-W-25038; (22awg and 20awg; nickel-coated high strength copper alloy per ASTM 8624).

***Insulation:** Advanced design composite layers.

Color Code: White, unless otherwise specified.

"One hundred percent (100%) of the finished wire passes a 2500 V. RMS spark test.

FINISHED WIRE CONSTRUCTION DETAILS

MAXIMUM WEIGHT COMPARISONS (lbs./1000 ft)

Wire Size	Mil-W-25038/1	FlightSafe 260XL® (Mil-W-25038/JC)	Note
22	10.0	4.15	FlightSafe 260XL® weighs up to 33% less than the older Mil-W-25038/1 Wire
20	12.0	9.0	
18	15.0	10.5	
16	19.0	13.5	
14	25.0	19.5	
12	35.0	28.0	

MAXIMUM FINISHED DIAMETER COMPARISON (inches)

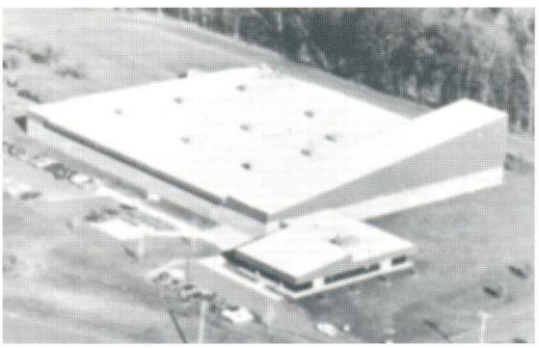
Wire Size	Mil-W-25038/1	FlightSafe 260XL® (Mil-W-25038/JC)	Note
22	.116	.054	FlightSafe 260XL® is up to 50% smaller than the older Mil-W-25038/1 Wire
20	.125	.083	
18	.135	.097	
16	.147	.103	
14	.170	.123	
12	.185	.142	

These laboratory tests show that FlightSafe XL® not only is qualified to Mil-W-25038/3, but exceeds the requirements of Mil-W-25038/1 by significant amounts. Specialty Cable also has additional test data available on impact strength, dynamic cut-through and crush resistance... critical performance criteria for safety-related electrical and electronic systems.

CROSS REFERENCE PART NUMBER GUIDE

Part #	Gauge Size	Mil Spec Ref. #	Stranding
814-4999678	22	Mil-W-25038/3-22	19/34
814-4877080	20	Mil-W-25038/3-20	19/32
814-4874749	18	Mil-W-25038/3-18	19/30
814-4874764	16	Mil-W-25038/3-16	19/29
814-4877056	14	Mil-W-25038/3-14	19/27
814-4877064	12	Mil-W-25038/3-12	19/25

Note: AWG sizes 10 through 4/0 also available, however these sizes are not currently covered by Mil-W-25038/3 as QPL wires.



Modern 65,000 square foot manufacturing facility located in Wallingford , Connecticut.

Trademarked ***FlightSafe 260XL®*** cable is available exclusively from **SCC.** The custom design that created it and the proprietary technology that makes ***FlightSafe 260XL®*** unique in hostile environment conditions comes from the research, engineering design and testing facilities available only to **SCC** customers.

Custom Cables: The cables in this table represent our standard product line. If you require special modifications or unique customizations, SCC engineers along with our extensive testing facilities can create and produce special cables for the most demanding applications.