

A photograph showing several different types of wires and cables. There are white cables with braided shields, a purple cable, and a yellow cable. Some have connectors, while others are bare wires. They are arranged in a crisscross pattern on a light grey background.

SPEC 55 Low Fluoride Wire and Cable

Enhanced Capability with Outgassing Below 10 PPM

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LOW OUTGASSING

- Less than 10 PPM

RUGGED

- 5x scrape abrasion within the spec
- Dynamic cut through

LIGHTWEIGHT

- Single thin wall primary

MIL SPEC QUALIFIED

- SAE AS22759/51-54

VERSATILE

- Available in primary wire and various cable configurations
- Custom configurations available upon request

APPLICATIONS/MARKETS

Markets

- Military and Commercial Satellites
- Missiles
- Spacecraft and Launch Vehicles
- High Altitude Aircraft

Applications

- Avionic Systems
- C4ISR Systems
- Guidance and Seeker Systems
- General Wire Harnessing Systems

TE Connectivity's (TE) SPEC 55 Low Fluoride (LF) offers a wire insulation system that mitigates the concern for corrosion of components due to outgassing, in confined areas. TE's fluoride off-gassing values typically run in the single digits, which is important to Space, Launch and Missile Platform customers. In addition, our insulation is robust, rugged and available in both single and dual wall for additional weight savings.

MATERIAL

- Fluoropolymer

STANDARDS

- Mil Spec SAE-AS22759
- Single Wall SAE-AS22759/51 and /52
- Dual Wall SAE-AS22759/53 and /54

PERFORMANCE REQUIREMENTS

Test Requirement	Requirement	55LF
Fluoride Off Gassing	< 20 ppm	< 10 ppm
Scrape Abrasion	> 1000 Cycles at 23°C	> 5000 Cycles at 23°C
	> 500 Cycles at 70°C	> 1500 Cycles at 70°C
	> 50 Cycles at 150°C	> 100 Cycles at 150°C
Dynamic Cut Through	> 25 lbs at 23°C	> 30 lbs at 23°C
	> 15 lbs at 70°C	> 20 lbs at 70°C
	> 5 lbs at 150°C	> 6 lbs at 150°C
	> 2 lbs at 200°C	> 2 lbs at 200°C
Wet/Dry Arc Resistance	70/75 Pass	73-74/75 Pass



SPEC 55 LF Single Wall Wire



SPEC 55 LF Dual Wall Wire



SPEC 55 LF Cable

TE Components . . . TE Technology . . . TE Know-how . . .

AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem
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Empower Engineers to Solve Problems, Moving the World Forward.



SPEC 55 LF: General Purpose Part Numbering System

	<u>55</u>	<u>LF</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>-</u>	<u>1</u>	<u>*</u>	<u>-</u>	<u>AWG</u>	<u>2/6</u>	<u>9</u>
BASIC PRODUCT NUMBER												
PRODUCT TYPE												
LF	General Purpose, Ultra Low Fluoride											
LFC	General Purpose, Ultra Low Fluoride, 90% Min Shield Coverage											
CONSTRUCTION												
0	Primary Wire or Unshielded/Unjacketed Cable											
1	Round Braid Shielded and Jacketed Cable*											
2	Flat Braid Shielded and Jacketed Cable*											
3	Round Braid Shielded Cable, No Jacket*											
4	Jacketed Cable, No Shield											
5	Spiral Braid Shielded and Jacketed Cable*											
6-9	Special Constructions											
CLASS OF WIRE												
1	600 Volt, Lightweight											
2	600 Volt, Medium Weight											
7	1000 Volt, Heavy Duty, Airframe											
8	600 Volt, Normal Weight, Airframe											
NUMBER OF CONDUCTORS												
1 through 10 (designator for 10 conductor = 0)												
CONDUCTOR TYPE												
1	Tin-Coated Copper											
2	Silver-Coated Copper											
3	Nickel-Coated Copper											
4	Silver-Coated High-Strength Copper Alloy											
6	Nickel-Coated High-Strength Copper Alloy											
A	Silver-Coated Ultra High-Strength Copper Alloy											
OPTIONAL SHIELD MATERIAL												
H	High-Strength Copper Alloy, Shield Coating Same as Conductor Coating (No designator defaults to coated "copper" shield, if any)											
CONDUCTOR SIZE (AWG)												
PRIMARY WIRE INSULATION COLOR (code per MIL-STD-681, except as noted)												
0	Black	5	Green	For light colors, an "L" is added to the end of the color, example: 2L = Pink								
1	Brown	6	Blue									
2	Red	7	Violet									
3	Orange	8	Gray	For dark colors, a "D" is added to the end of the color, example: 5D = Dark Green								
4	Yellow	9	White									
JACKET COLOR (CODE PER MIL-STD-681)												
Codes same as for Primary Wire Insulation Color												

* Except for part numbers with Shield Material designation "H", shield coating same as conductor coating.

LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit www.te.com/industrial to chat with a Product Information Specialist.

Technical Support

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Consult TE for the latest dimensions and design specifications.

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