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Consult TE for the latest dimensions and design specifications.



HIGH-PERFORMANCE RAYCHEM WIRE AND CABLE

THE PERFORMANCE CHOICE FOR
HARSHEST ENVIRONMENTS

QUICK REFERENCE GUIDE

High Performance

- Meet your application challenges . . . from harsh to harshest
- Compatible with full range of connectors and harnessing components

Space and Weight Savings

- Wide range of advanced cross-linked insulations and jackets
- Choice of tin-, nickel-, or silver-plated copper/copper alloy conductors

Aerospace									
Product Family	Applications	Conductor Sizes (AWG)	Temperature Range (°C)	Insulation Material	Voltage (V)	Conductor Options/Relative Cost			Colors
						\$	\$\$	\$\$\$	
SPEC 44 (AS81044)	Military Aerospace Commercial Aerospace In-Flight Entertainment Space Applications Satellites	30 to 4/0	-65 to 150	Radiation-Cross-Linked PVDF2	600/1000/2500	Tin-Plated Copper	Nickel-Plated Copper / Alloy	Silver-Plated Copper / Alloy	All
SPEC 55 (AS22759)		30 to 4/0	-65 to 200	Radiation-Cross-Linked ETFE	450/600/1000	Tin-Plated Copper	Nickel-Plated Copper / Alloy	Silver-Plated Copper / Alloy	All
SPEC 80		30 to 4/0	-65 to 200	Radiation-Cross-Linked Flexible ETFE	600/1000	Tin-Plated Copper	Nickel-Plated Copper / Alloy	Silver-Plated Copper / Alloy	All
SHF-260	Helicopters Engines	24 to 2/0	-65 to 260	Extruded Fluoropolymer	1000	—	Nickel-Plated Copper	—	Black and White

Marine									
Product Family	Applications	Conductor Sizes (AWG)	Temperature Range (°C)	Insulation Material	Voltage (V)	Conductor Options/Relative Cost			Colors
						\$	\$\$	\$\$\$	
ZHPCG / ZHI (Class 5 & Class 6)	Military Naval Applications Military Electronics Shipboard Weapon Systems Shipboard Communication Systems Offshore Marine Applications Umbilicals / Tethers Drilling and Pumping Equipment	1.5 mm² to 400 mm²	-45 to 125	Radiation-Cross-Linked Halogen-Free Polyolefin	600/1000/1900/3000	Tin-Plated Copper	—	—	Black
FDR25		8 to 0	-55 to 125	Flexible Diesel-Resistant Polyester Blend	1000	Tin-Plated Copper	—	—	Black
10603		14 to 4/0 and 250 and 350 MCM	-55 to 125	Thermorad Dual Insulation	600	Tin-Plated Copper	—	—	Black
SPEC 44/44M		30 to 4/0	-65 to 150	Radiation-Cross-Linked PVDF2	600/1000/2500	Tin-Plated Copper	Nickel-Plated Copper / Alloy	Silver-Plated Copper / Alloy	MIL-STD-681
SPEC 99M		See Def Stan 61-12 Part 18 for construction available sizes	-40 to 120	Radiation-Cross-Linked Modified Polyester	600/1000	Tin-Plated Copper	—	—	MIL-STD-681
100G (VG-95218-Type 20 to Type 23)		30 to 4/0	-55 to 125	Halogen-Free Polymer	750/1300	Tin-Plated Copper	—	—	MIL-STD-681

Ground									
Product Family	Applications	Conductor Sizes (AWG)	Temperature Range (°C)	Insulation Material	Voltage (V)	Conductor Options/Relative Cost			Colors
						\$	\$\$	\$\$\$	
ZHPCG / ZHI (Class 5 & Class 6)	Grounds Systems Military Ground Vehicles Wheeled and Tracked Vehicles Amphibious Vehicles Heavy and Light Trucks	1.5 mm² to 400 mm²	-45 to 125	Radiation-Cross-Linked Halogen-Free Polyolefin	600/1000/1900/3000	Tin-Plated Copper	--	--	Black
SPEC 44 (AS81044)		30 to 4/0	-65 to 150	Radiation-Cross-Linked PVDF2	600/1000/2500	Tin-Plated Copper	Nickel-Plated Copper / Alloy	Silver-Plated Copper / Alloy	MIL-STD-681
SPEC 55 (AS22759)		30 to 4/0	-65 to 200	Radiation-Cross-Linked ETFE	450/600	Tin-Plated Copper	Nickel-Plated Copper / Alloy	Silver-Plated Copper / Alloy	MIL-STD-681
SPEC 80		30 to 4/0	-65 to 200	Radiation-Cross-Linked Flexible ETFE	600	Tin-Plated Copper	Nickel-Plated Copper / Alloy	Silver-Plated Copper / Alloy	MIL-STD-681
SHF-260		24 to 0	-65 to 260	Fluoropolymer	1000	—	Nickel-Plated Copper	—	White and Black
FDR25		8 to 0	-55 to 125	Flexible Diesel-Resistant Polyester	1000	Tin-Plated Copper	—	—	Black
10603		14 to 4/0 and 250 and 350 MCM	-55 to 125	Thermorad Dual Insulation	600	Tin-Plated Copper	—	—	Black
100G (VG-95218-Type 20 to Type 23)		30 to 4/0	-55 to 125	Halogen-Free Polymer	750/1300	Tin-Plated Copper	—	—	MIL-STD-681

Material Abrasion Resistance and Flexibility				
Material	Product Group	Abrasion Resistance	Flexibility	
FDR25	FDR25	Fair	Excellent	
Thermorad Dual Insulation	10603	Good	Very Good	
XL Halogen Free Polyolefin	ZHPCG	Good	Good	
Fluoropolymer	SHF-260	Good	Fair-Good	
XL PVDF2	SPEC 44	Very Good	Fair-Good	
XL ETFE	SPEC 55	Very Good	Fair	
XL Flexible ETFE	SPEC 80	Very Good	Fair	
XL ETFE	VG-95218-Type 20 to Type 23	Very Good	Fair	
XL PVDF2	VG-95218-Type 20 to Type 23	Very Good	Fair-Good	

Approvals/Specifications		
Specification	TE Cable Types	
SAE AS81044/5 to /13	81044/x	
SAE AS22759/32 to /35 and 22759/41 to /46	22759/x	
NEMA WC-27500	Specific SPEC 44x and 55A parts ONLY	
Defence Standard 61-12 Part 33/001 Issue 5	Specific SPEC 55D parts ONLY	
Defence Standard 61-12 Part 18 - Type 1	Specific SPEC 44M and SPEC 99 ONLY	
Defence Standard 61-12 Part 26 - All Types	Specific SPEC 44D ONLY	
VG 95218 Parts 20, 21, 22, 23, 1000	Specific SPEC VG ONLY	
NATO Stock Numbers (NSNs)	Exist for most standard constructions: check product offering	
Raychem Specification SPEC 55	Covers all base SPEC 55 products	
Raychem Specification SPEC 44	Covers all base SPEC 44 products	
Boeing Spec 13-48	Specific SPEC 55PC with CS2502 and specific suffix ONLY	
Airbus ABS 0820 through to 0826	Specific SPEC 55K ONLY	
European Space Agency 3901/012, 3901/020 and 3901/022	Specific SPEC 55 and SPEC 99 ONLY	