

### Summary of Typical Cable Jacket Properties

Property	Cable jacket material							
	FDR 25	Zerohal	Viton	Thermorad	Raythane	Neoprene	Rayolin	AFR
Temperature range (°C)*	-40 to 150	-30 to 105	-20 to 200	-55 to 125	-25 to 80	-55 to 90	-55 to 95	-40 to 105
Abrasion resistance	Good	Good	Good	Good	Excellent	Fair	Very good	Excellent
Flexibility	Very good	Good	Good	Good	Excellent	Excellent	Fair	Good
Flame resistance	Self-ext'ng	Self-ext'ng	Nonburning	Self ext'ng	Self-ext'ng	Self-ext'ng	-	Self-ext'ng
Chemical resistance								
Acid	Good	Good	Excellent	Good	Fair	Good	Good	Good
Alkaline	Good	Good	Excellent	Good	Fair	Good	Good	Good
Hydrocarbon	Very good	Good	Excellent	Good	Excellent	Good	Good	Good

\*Operating temperatures for cables are application dependent. Figures shown are for guidance only. In many cases the limits shown may be extended at both ends of the temperature range. The user should consult Raychem for guidance.

### Specifications/Approvals (Components and Jacket Materials)

Specifications	FDR 25	Zerohal	Viton	Thermorad	Raythane	Neoprene	Spec 99 wire	SPEC 44 wire	SPEC 55 wire	Spec 100 wire
Def. Stan. 61-12 Part 31		X								
Def. Stan. 61-12 Part 18 type 1 (issue 4)							X	X (maintenance only)		
Def. Stan. 61-12 Part 21									X	
Def. Stan. 61-12 Part 25		X					X			
Def. Stan. 61-12 Part 26								X		
MSV 34401								X		
MSV 34410, 34411				X				X		
MSV 34412, 34413, 34430, 34435, 34436		X						X		
NFF63-808										X
VG 95218 (Part 20 Type E)										X
VG 95218 (Parts 24-28)		X						X		
VG 95218 (Part 1000)								X		
VG 95218 (Part 1001)									X	
MIL-C-24640		X						X		
MIL-W-81044/MIL-C-27500								X		
MIL-W-22759/MIL-C-27500										
<b>Approvals</b>										
Lloyd's Register of Shipping		X					X			
Underwriters' Laboratories				X	X (Raythane FR)			X	X	
Civil Aviation Authority								X	X	
Germanischer Lloyd		X						X		

## Major Cable Specifications

Country	Cable specification	Specification description	Approved jacket
Germany	VG 95218 (Parts 27–28) (MTV 6145-005)	Military ground systems specification for signal, control, and power cables. Wire to VG 95218 (Part 1000).	FDR 25
Netherlands	MSV 34410, 34411	Royal Netherlands Navy specification. Signal, control, and light power cables. Wire to MSV 34401.	Thermorad
	MSV 34412, 34413, 34430, 34435, 34436	Royal Netherlands Navy specification. Signal, control, and light power cables. Wire to MSV 34401.	Zerohal
United Kingdom	Def. Stan. 61-12 Part 25	Royal Navy/Air Force specification covering limited-fire-hazard, thin-wall, insulated electric cables using Def. Stan. 61-12 Part 18 approved wire. Signal, control, and light power circuits.	Zerohal
United States	MIL-C-24640	Navy specification covering limited-fire-hazard, thin-wall, insulated electric cables for signal, control, and light power circuits. Wire to MIL-W-81044.	Zerohal

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