

This specification describes a 24 AWG, 100-ohm, Ethernet cable with a budget length of 240ft (73m) to meet CAT 5e.

**CONDUCTOR**

Material: Silver-coated Copper Alloy  
 Size: AWG 24  
 Construction: 19 x 36  
 OD(nom): .0235"  
 Conductor Resistance(nom): 26.8 ohms/1,000 ft

**INSULATION**

Material #1: Extruded Expanded PTFE  
 Material #2: Spiral-wrapped and fused PTFE Tape  
 OD(nom): .045"

**CABLE**

Four (4) of the above insulated conductors are cabled together around one (1) PTFE filler.

**BINDER TAPE**

Material: PTFE Tape

**SHIELD #1**

Material: Tin-coated Copper Flat Braid  
 Coverage(min): 90%

**SHIELD #2**

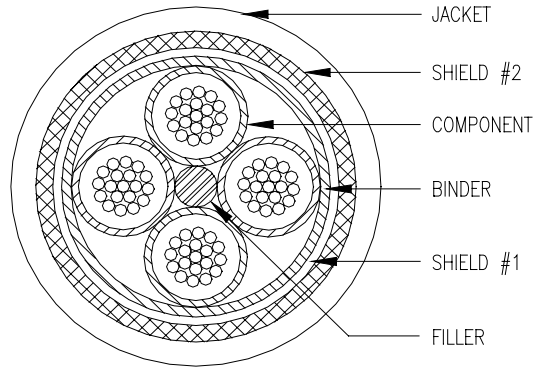
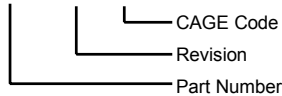
Material: Tin-coated Copper Round Braid  
 Coverage(min): 85%

**JACKET**

Material: Extruded FEP  
 OD: .160" ± .010"

**IDENTIFICATION**

Material: Polyimide Marker Tape  
 Legend: Tensolite NF24Q100 D 92607



**COLOR**

Pair #1: Red-Red/Black  
 Pair #2: Blue-Blue/Black  
 Jacket: Translucent Yellow

**CABLE CHARACTERISTICS**

Differential Impedance: 100 ± 10 ohms  
 Capacitance (nom): 13 pF/ft  
 Velocity of Propagation (nom): 80%  
 Weight (nom): 24.5 lbs/1,000 ft  
 Weight(max): 27.0 lbs/1,000 ft

Frequency (MHz)	Attenuation (dB/100m)		Near End Cross Talk (dB)	Return Loss (dB)
	nom	max	min	min
1	2.1	2.7	65.3	20.0
4	4.4	5.6	56.3	23.0
8	6.3	7.9	51.8	24.5
10	7.3	8.9	50.3	25.0
16	9.3	11.2	47.3	25.0
20	10.5	12.7	45.8	25.0
25	11.8	14.2	44.3	24.2
31.25	13.3	16.0	42.9	23.3
62.5	19.3	23.3	36.4	20.7
100	26.0	30.1	35.3	19.0

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TENSOLITE COMPANY

SUBSIDIARY OF CARLISLE CORPORATION

ST. AUGUSTINE, FL

Drawn by: **Chris Lowe** Date: **3/3/04**

Approved By: **Sherry Condrey** Date: **3/3/04**

Description:  
**100-Ohm Ethernet Cable**

D 3/3/04 Changed color code back to Red-Red/Black; Blue-Blue/Black.

C 11/3/03 Changed color code to Red-Blue; Green-Yellow.

B 1/27/03 Added identification.

Part Number: **NF24Q100** Cage Code: **92607**