Technical

Data Sheet

# ALFOUR<sup>®</sup>-f

Aluminum Shield | Single Jacket | Filled - Gel

Pair Count 6 - 1800P

Outside Plant Copper Cable - Exchange Cable

#### Description

**Conductors:** Solid annealed copper in 19, 22, 24 and 26 AWG.

**Insulation:** Conductors are insulated with solid polyolefin, color coded in accordance with industry standards.

**Twisted Pairs:** Individual conductors are twisted into pairs with varying lay lengths to minimize crosstalk and specific color combinations to provide pair identification.

**Core Assembly:** Cables of 25 pairs or less are assembled into a cylindrical core. Cables larger than 25 pairs are assembled into units, which are then used to assemble the core. Units are individually identifiable by color coded unit binders.

**Filling Compound:** The core assembly is filled with an  $80^{\circ}$  C ETPR or PIB base jelly compound, completely filling the interstices between the pairs and under the core wrap.

**Core Wrap:** A non-hygroscopic, dielectric tape is applied over the core assembly to provide protection for the core.

**Shielding:** A corrugated, copolymer coated, 8-mil aluminum tape is applied longitudinally with an overlap. The shield interfaces are flooded with an adhesive compound to provide a moisture barrier and inhibit corrosion.

Jacket: A black, linear low-density polyethylene jacket is applied overall. The jacket provides a tough protective covering designed to withstand exposure to direct sunlight, atmospheric temperature changes and stresses expected in standard installations.

**Jacket Markings:** Information, such as manufacturer's identification, pair count, AWG, product identification and a telephone handset is printed at 2 ft. intervals on the cable jacket. Sequential footage markings are printed at alternate 2 ft. intervals.

**Optional Designs:** ALFOUR®-F cables are also available with an internal screen for use with T-Carrier systems.

#### Cable cut-away



#### Applications

1st iSSUE

4SProducts ALFOUR®-F cables are designed for direct burial or duct applications where protection from moisture is required. ALFOUR®-F cables may be used aerially, but must be attached to a support strand (messenger). ALFOUR®-F cables, in 19, 22, 24 and 26 AWG, are capable of meeting the electrical requirements of 100 ohms, Category 3, Backbone UTP Cables as specified in TIA/EIA-568-A.

#### Qualifications & Approvals

Manufactured to meet requirements of ANSI/ICEA S-84-608-2002, RUS 7 CFR 1755.390 (PE-39).



www.4SProducts.com
4621 Ponce de Leon Boulevard
Coral Gables, FL 33146, USA
[1] 305.666.7474
[1] 305.666.7272 fax
cable@4SProducts.com e-mail

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1	Average m	utual capa	citance @ '	1000 H	z								
Total No. of pairs		mile	nF/km										
12 or Less			83± 7		52± 4								
Over 12 Conductor Size		83± 4 Minimum Insulation Resistance		1	52± 2 Average Maximum Attenuation		Maximum Conductor Resistance		Resistance Unbalance		Dielectric Strength DC Potential Volts		
		68 °F (20 °C)		68 °F (20 °C) 772 kHz		68 °F (20 °C) (ohms)		Maximum		Minimum			
AWG	mm	Gigohm/ mile	Gigohm/ km	dB/k			mile	km	Avg %	Individual pair %	Cdr to Cdr	Cdr to Ground	
19	0.90	1.0	1.6	2.8		9.2	45.0	28.0	1.5	5.0	7,000	15,000	
22	0.64	1.0	1.6	4.0		13.1	91.0	56.5	1.5	5.0	5,000	15,000	
24	0.50	1.0	1.6	5.0		16.4	144.0	89.5	1.5	5.0	4,000	15,000	
26	0.40	1.0	1.6	6.4		21.0	232.0	144.0	1.5	5.0	2,800	15,000	
Capaci	itance unba	lance Pair-to	o-Pair										
Pr	airs		Max	imum ir	imum individual				Maximum RMS				
Pairs			ρF/kft			pF/km	pF/km		pF/kft		pF/km		
12 or less 80			80	145				-			-		
more than 12 80				145				25			45		
Capaci	itance unba	lance Pair-to	o-Ground										
			simum individual			Maximum RMS							
Pairs			ρf/kft			pF/km			pF/kft			pF/km	
12 or Less 800			2625			-			-				
more than 12 800			2625			175			574				
Near End Crosstalk (NEXT) 150							0 kHz 772 kHz						
P.S. WUNEXT mean (dB)				58				47					
P.S. WUNEXT worst pair (dB)					53				42				
Far En	d Crosstalk	(FEXT) @ 1	50 kHz										
Conductor size (AWG)				19			22		24		26		
P.S. ELFEXT mean (dB) 65				5	63			63		61			
P.S. ELFEXT worst pair (dB)				59			57		57		57		
Far En	d Crosstalk	(FEXT) @ 7	72 kHz										
Conductor size (AWG)				19	9	22		24		26			
P.S. ELFEXT mean (dB)			51			49		49		47			
P.S. ELFEXT worst pair (dB)					4	5	43		43		43		



Specifications are subject to change without notice. The data given is subject to normal manufacturing tolerances. 4SProducts Copper Communication Cobles are designed and tested in accordance with the requirements of RNSI/ICEA.

