

# BONDED STALPETH

DCAZ, DCMZ and DCTZ



## Specifications

Conductor	Solid annealed copper
Insulation	Conductors are dual insulated with an inner layer of foamed, natural polyolefin covered by an outer layer of solid, colored polyolefin; conductor insulation is color coded in accordance with industry standard
≥ 50-Pair Core	Multiples of 25-pair groups are assembled to form the final cable core; each group is identified by color coded non-hygroscopic binders; for 1,200-pair and larger, the color code is Mirror Image design
Core Wrap	Non-hygroscopic dielectric material
Shield	Corrugated bare 8 mil aluminum tape applied longitudinally over the core wrap
Armor	Corrugated, copolymer coated, 6 mil steel tape applied over the aluminum shield and bonded to the outer jacket
Jacket	Black polyethylene
Jacket Marking	Manufacturer's identification, pair count, AWG, product identification and a telephone handset printed at 2 foot intervals; sequential footage markings are printed at alternate 2 foot intervals
Standards Compliance	Telcordia GR-421-CORE Issue 2 RoHS-compliant

## Product Description

Bonded STALPETH Cable is a foam skin insulated, single jacket, armored air core design intended for use in ducts to provide more efficient duct utilization than standard PIC designs.

## Applications

- Congested underground duct systems

## Features

- Tightly controlled individual conductor dimensions
- Specially designed pair twist lays
- Core wrap
- Aluminum tape shield
- Steel tape armor bonded to outer jacket
- Polyethylene jacket

## Benefits

- Limits resistance unbalance of paired conductors
- Minimizes crosstalk and meets the capacitance unbalance requirements
- Protects the core and helps provide core-to-shield dielectric strength
- Assures good electrical contact with non-piercing bonding clamps
- Protects the core from mechanical damage and reduces the possibility of tape buckling during installation, ingress of water to the aluminum shield and of water along the cable between the armor and outer jacket
- Provides a tough, flexible, protective covering that withstands exposure to sunlight, atmospheric temperatures, ground chemicals and stresses expected in standard installations

## Electrical Specifications

Number of Pairs	Average Mutual Capacitance @ 1000 Hz nF/mile (nF/km)	Capacitance Unbalance Pair to Pair @ 1 kHz		Capacitance Unbalance Pair to Ground @ 1 kHz	
		Maximum Individual pF @ 1 kft (pF @ 1 km)	Maximum RMS pF @ 1 kft (pF @ 1 km)	Maximum Individual pF @ 1 kft (pF @ 1 km)	Maximum Average pF @ 1 kft (pF @ 1 km)
All pairs	83 ± 4 (52 ± 2)	80 (145)	25 (45)	800 (2,625)	175 (574)

Conductor Size AWG (mm)	Minimum Insulation Resistance @ 68°F (20°C) gigohm-mile (gigohm-km)	Maximum Average Attenuation 772 kHz @ 68°F (20°C) dB/kft (dB/km)	Maximum Conductor Resistance @ 68°F (20°C) Ohms/sheath mile (km)	DC Resistance Unbalance Maximum %		Dielectric Strength DC Potential – Volts	
				Average	Individual Pair	Conductor to Conductor	Conductor to Shield
22 (0.64)	1.0 (1.6)	5.0 (16.4)	91 (56.5)	1.5	5.0	1,400	5,000
24 (0.51)	1.0 (1.6)	6.3 (20.7)	144 (89.5)	1.5	5.0	1,200	5,000
26 (0.40)	1.0 (1.6)	7.9 (25.9)	232 (144.2)	1.5	5.0	1,000	5,000

### Minimum Near End Crosstalk (NEXT) @ 772 kHz

PSWUNEXT Mean (dB)	47
PSWUNEXT Worst Pair (dB)	42

### Minimum Far End Crosstalk (FEXT) @ 772 kHz

Conductor Size (AWG)	22	24	26
PSELFEXT Mean (dB/kft)	49	49	47
PSELFEXT Worst Pair (dB/kft)	43	43	43

# BONDED STALPETH

DCAZ, DCMZ and DCTZ



## Part Numbers and Physical Characteristics

Part Number	Product Code	Pair Count	AWG (mm)	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Standard Length ft (m)	Approx. Shipping Weight lbs (kg)	Steel Reel Size F x T x D in
119-083-01	DCAZ	900	22 (0.64)	2.49 (63)	4,375 (6,510)	1,600 (488)	7,795 (3,535)	83 x 40 x 42
119-085-01	DCAZ	1,200	22 (0.64)	2.85 (72)	5,770 (8,585)	1,200 (366)	7,720 (3,500)	83 x 40 x 42
119-116-01	DCMZ	600	24 (0.51)	1.70 (43)	1,960 (2,915)	3,900 (1,189)	8,440 (3,830)	83 x 40 x 42
119-118-01	DCMZ	900	24 (0.51)	2.02 (51)	2,860 (4,255)	2,616 (797)	8,275 (3,755)	83 x 40 x 42
119-120-01	DCMZ	1,200	24 (0.51)	2.30 (58)	3,755 (5,590)	2,000 (610)	8,305 (3,765)	83 x 40 x 42
119-121-01	DCMZ	1,500	24 (0.51)	2.57 (65)	4,660 (6,935)	1,600 (488)	8,250 (3,745)	83 x 40 x 42
119-124-01	DCMZ	1,800	24 (0.51)	2.81 (71)	5,545 (8,250)	1,250 (381)	7,725 (3,505)	83 x 40 x 42
119-125-01	DCMZ	2,100	24 (0.51)	3.04 (77)	6,440 (9,585)	1,150 (351)	8,200 (3,720)	83 x 40 x 42
119-126-01	DCMZ	2,400	24 (0.51)	3.22 (82)	7,320 (10,895)	876 (267)	7,205 (3,270)	83 x 40 x 42
119-151-01	DCTZ	600	26 (0.40)	1.38 (35)	1,285 (1,910)	5,700 (1,737)	8,120 (3,685)	83 x 40 x 42
119-153-01	DCTZ	900	26 (0.40)	1.62 (41)	1,850 (2,755)	3,900 (1,189)	8,010 (3,635)	83 x 40 x 42
119-155-01	DCTZ	1,200	26 (0.40)	1.84 (47)	2,420 (3,600)	3,200 (975)	8,540 (3,875)	83 x 40 x 42
119-156-01	DCTZ	1,500	26 (0.40)	2.08 (53)	2,995 (4,455)	2,500 (762)	8,285 (3,755)	83 x 40 x 42
119-157-01	DCTZ	1,800	26 (0.40)	2.26 (57)	3,560 (5,300)	2,080 (634)	8,200 (3,720)	83 x 40 x 42
119-158-01	DCTZ	2,100	26 (0.40)	2.41 (61)	4,115 (6,125)	1,250 (381)	5,940 (2,695)	83 x 40 x 42
119-159-01	DCTZ	2,400	26 (0.40)	2.58 (66)	4,685 (6,970)	1,600 (488)	8,290 (3,760)	83 x 40 x 42
119-161-01	DCTZ	2,700	26 (0.40)	2.71 (69)	5,240 (7,800)	1,250 (381)	7,345 (3,330)	83 x 40 x 42
119-162-01	DCTZ	3,000	26 (0.40)	2.86 (73)	5,800 (8,630)	1,200 (366)	7,755 (3,520)	83 x 40 x 42
119-164-01	DCTZ	3,600	26 (0.40)	3.03 (77)	6,885 (10,245)	1,150 (351)	8,715 (3,950)	83 x 40 x 42
119-167-01	DCTZ	4,200	26 (0.40)	3.26 (83)	7,995 (11,900)	900 (274)	7,990 (3,625)	83 x 40 x 42