



## ● Application

The full name of ADSS cable is All Dielectric Self Supporting Fiber Optic Cable, it is designed for aerial self-supporting applications at short, medium and long span distances.

ADSS fiber optic cables provide a fast and cost-effective way to deploy fiber optic cables along existing right-of-way. In addition to power companies, cable operators, phone companies, municipalities and start-up network operators are also deploying them.

## ● Performance

Below are the coefficients for a standard ADSS cable containing 32 to 60 fibers in 5 tubes with a single outer jacket. The cable can be used in a span of 450 feet with NESC light conditions, 300 feet for NESC medium and 240 feet for NESC heavy conditions.

Cross section area 0.196 in<sup>2</sup>

Outside diameter 0.5 in

Unit weight 0.081 lbs/ft

Ultimate tension 5800 lbs The following values are calculated at 68 deg.F

Final modulus of elasticity 3248850 psi

Thermal expansion coefficient -2.78e-7 /deg.F

Stress strain A! 2973280 psi

Creep A1 2625190 psi

## ● Construction

The ADSS fiber optic cables consist of a number of tubes/elements according to the specified number of fibers. The elements are usually fiber-containing tubes; however fillers may be used to preserve the cable geometry. Two to twelve color-coded fibers are loosely laid in each tube which is filled with a water-blocking gel. The tubes are stranded around a dielectric central strength member and bound in a jacket. A water-swelling tape is helically wrapped around the cable core. Aramid yarn strength members are helically laid to supply peripheral strengthening of the cable. The outer jacket is tightly bound over the aramid yarn layer. For long span applications a double jacket design can be considered. A ripcord is located under each jacket layer to facilitate its removal. For up to 30 fiber cables, the "ADSC" design is applicable, for 32-144 fibers the "ADSC" design is applicable. Dry cable designs, ballistic protection and other cable designs are available upon request.. Standards - Cables are designed for aerial installation according to IEEE-P1 222 - Cables tested according to TIA/EIA-455 and IEC-60794-1. - Cables meet or exceed Telcordia (Bellcore) requirements for outside plant cables (GR-20) when the appropriate options are chosen.

Default Jacket Colors: PE HFFR SM Fibers Black Yellow MM Fibers Black Orange, Other jacket colors may be available, please specify.

## ● Eastful Cable Lab



We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.

CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

## ● Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TUV Rhineland and CCS.



## ● National Green Factory



Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China. We are committed to the development of high-end, intelligent and green manufacturing industry.

\*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

● Technical Parameters

No. of Elements	Cable Weight	Cable Dia.	Installation Tension	Span	Sag in Light Wind	Tension in Light Wind	Sag in Medium Wind	Tension in Medium Wind	Sag in Heavy Wind	Tension in Heavy Wind
No.	kg/km	mm	(N)(2)	m	m	N	m	N	m	N
5	105	11.5	400	30	0.16	1230	0.48	1600	0.66	2370
5	105	11.5	525	40	0.22	1540	0.69	1970	0.95	2940
5	105	11.5	800	60	0.37	2100	1.16	2650	1.6	3900
5	105	11.5	860	70	0.46	2300	1.42	2930	2.27	4320
5	105	11.5	985	80	0.54	2560	1.68	3240	2.33	4755
5	105	11.5	1255	100	0.71	3040	2.25	3820	-	-
5	105	11.5	1520	120	0.89	3500	2.8	4380	-	-
5	105	11.5	1785	135	1.01	3870	3.23	4810	-	-
5	105	11.5	1920	150	1.16	4170	3.7	5180	-	-
5	120	12.7	425	30	0.16	1310	0.49	1650	0.67	2430
5	120	12.7	570	40	0.23	1630	0.71	2030	0.96	3000
5	120	12.7	715	50	0.3	1940	0.94	2400	1.28	3530
5	120	12.7	845	60	0.38	2220	1.17	2750	1.62	4020
5	120	12.7	990	70	0.45	2520	1.43	3080	1.97	4500
5	120	12.7	1120	80	0.54	2780	1.69	3390	2.35	4990
5	120	12.7	1500	100	0.7	3340	2.22	4050	-	-
5	120	12.7	1780	120	0.88	3840	2.79	4628	-	-
5	120	12.7	1936	135	1.02	4150	3.26	5020	-	-
5	120	12.7	2200	150	1.16	4530	-	-	-	-
6	125	12.7	443	30	0.16	1320	0.5	1640	0.67	2500
6	125	12.7	580	40	0.24	1640	0.71	2040	0.97	3000
6	125	12.7	795	50	0.3	2000	0.92	2470	1.26	3590
6	125	12.7	950	60	0.38	2300	1.16	2800	1.6	4080
6	125	12.7	1085	70	0.46	2570	1.42	3130	1.96	4540
6	125	12.7	1240	80	0.54	2850	1.68	3450	2.32	5000
6	125	12.7	1530	100	0.72	3350	2.22	4070	-	-
6	125	12.7	180	120	0.9	3830	2.8	4650	-	-
6	125	12.7	2080	135	1.04	4220	3.23	5100	-	-
6	125	12.7	2340	150	1.18	4600	-	-	-	-

## ● Technical Parameters

No. of Elements	Cable Weight	Cable Dia.	Installation Tension	Span	Sag in Light Wind	Tension in Light Wind	Sag in Medium Wind	Tension in Medium Wind	Sag in Heavy Wind	Tension in Heavy Wind
No.	kg/km	mm	(N)(2)	m	m	N	m	N	m	N
8	180	14.2	580	30	0.17	1500	0.5	1800	0.67	2590
8	180	14.2	820	40	0.24	1890	0.7	2260	0.96	3220
8	180	14.2	1000	50	0.32	2220	0.94	2630	1.28	3770
8	180	14.2	1220	60	0.4	2600	1.17	3060	1.61	4330
8	180	14.2	1400	70	0.49	2890	1.42	3415	1.97	4820
8	180	14.2	1640	80	0.57	3240	1.67	3800	-	-
8	180	14.2	1960	100	0.76	3790	2.23	4450	-	-
8	180	14.2	2360	120	0.94	4390	-	-	-	-
8	180	14.2	2640	135	1.09	4800	-	-	-	-
10	220	16	834	30	0.19	1730	0.49	2015	0.66	2810
10	220	16	1100	40	0.27	2150	0.7	2500	0.94	3500
10	220	16	1290	50	0.35	2500	0.93	2920	1.27	4070
10	220	16	1590	60	0.44	2910	1.17	3360	1.61	4660
10	220	16	1860	70	0.53	3290	1.4	3800	1.94	5220
10	220	16	2150	80	0.62	3680	1.66	4215	-	-
10	220	16	2690	100	0.81	4400	2.17	5030	-	-
10	220	16	3250	120	1	5114	-	-	-	-
12	280	17.2	1030	30	0.21	1910	0.49	2200	0.66	3030
12	280	17.2	1340	40	0.29	2380	0.71	2710	0.95	3720
12	280	17.2	1720	50	0.37	2900	0.91	3280	1.25	4400
12	280	17.2	2030	60	0.47	3300	1.15	3740	1.58	5030
12	280	17.2	2440	70	0.56	3800	1.38	4270	-	-
12	280	17.2	2750	80	0.65	4215	1.62	4725	-	-
12	280	17.2	3470	100	0.85	5070	-	-	-	-