

## FIBERLIGN® DIELECTRIC SUSPENSION

The **FIBERLIGN Dielectric Suspension** system uses a combination of Structural Reinforcing Rods (SRR), outer rods, a boltless housing, and resilient cable inserts to reduce compression clamping and bending stresses on the cable and fibers. Negative effects of wind-induced cable motion such as aeolian vibration, galloping, and wind sway are also minimized. The double rod layer offers critical protection against tearing of the plastic cable jacket during unbalanced longitudinal loading of the cable while providing substantial holding strength.

### FEATURES AND BENEFITS

- Attaches to a pole or structure with fittings such as a Y-Clevis, Clevis Eye, Chain Link, or Anchor Shackle
- Support long spans, high unbalanced longitudinal loads, and high vertical loads
- Support line angles up to 40 degrees with a single suspension and 80 degrees with a custom-designed double suspension
- Housing assembly, SRR, and outer rods are made from a high-strength aluminum alloy
- Inserts are reinforced with a molded-in aluminum alloy insert made from an elastomer that is specifically formulated for UV-resistance, weathering, high and low temperature variations, and compression set
- Housing halves are secured together with a galvanized steel bolt, lock washer, and washer
- SRR ends are factory formed to flare away from the cable to prevent damage to the cable during installation, unbalanced loading, or cable motion
- FIBERLIGN ADSS-CORONA™ Coil is available separately for the FIBERLIGN Aluminum Suspension

## SPECIFICATIONS

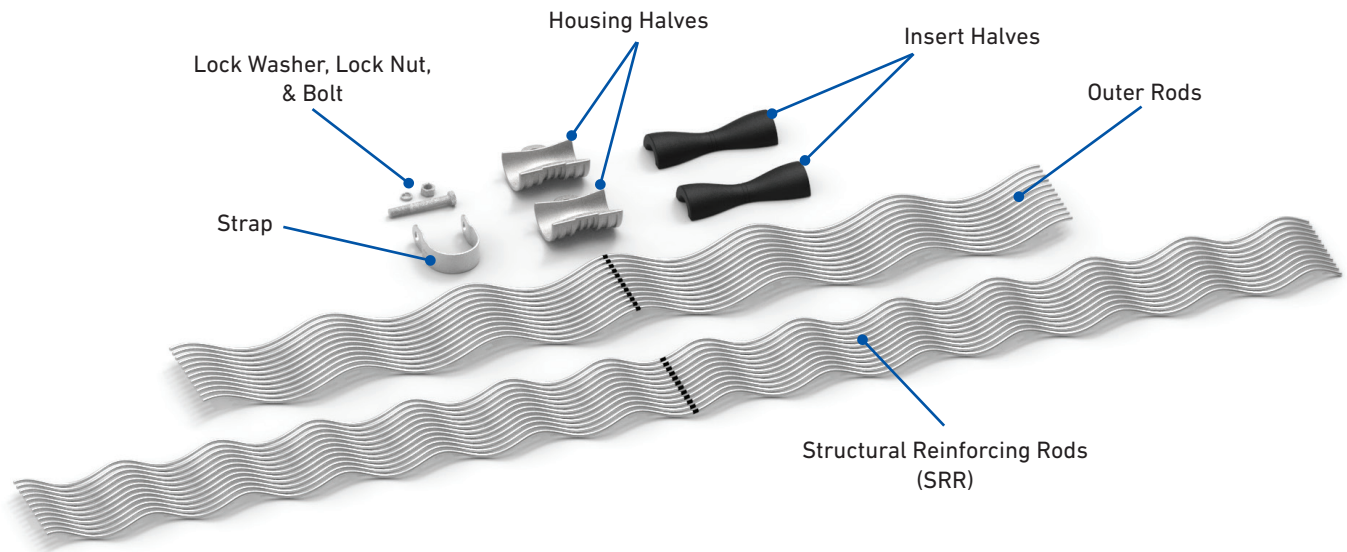
The suspension performance depends upon the specific cable outer diameter, initial cable tension, NESC loading condition, and other factors. The **FIBERLIGN® Dielectric Suspension** is designed for a cable system with high tensions and long spans. The following cable system specifications are required to use FIBERLIGN Dielectric Suspension:

### FIBERLIGN Dielectric Suspension

Cable System Requirements		
Maximum Span Length	Maximum Vertical Load	Maximum Line Angle
>1,200 ft (366 m)	Varies per Suspension Assembly <sup>1</sup>	Single Suspension 40 degrees
		Double Suspension 80 degrees

<sup>1</sup> Consult chart on next page for specific ratings

## COMPONENTS

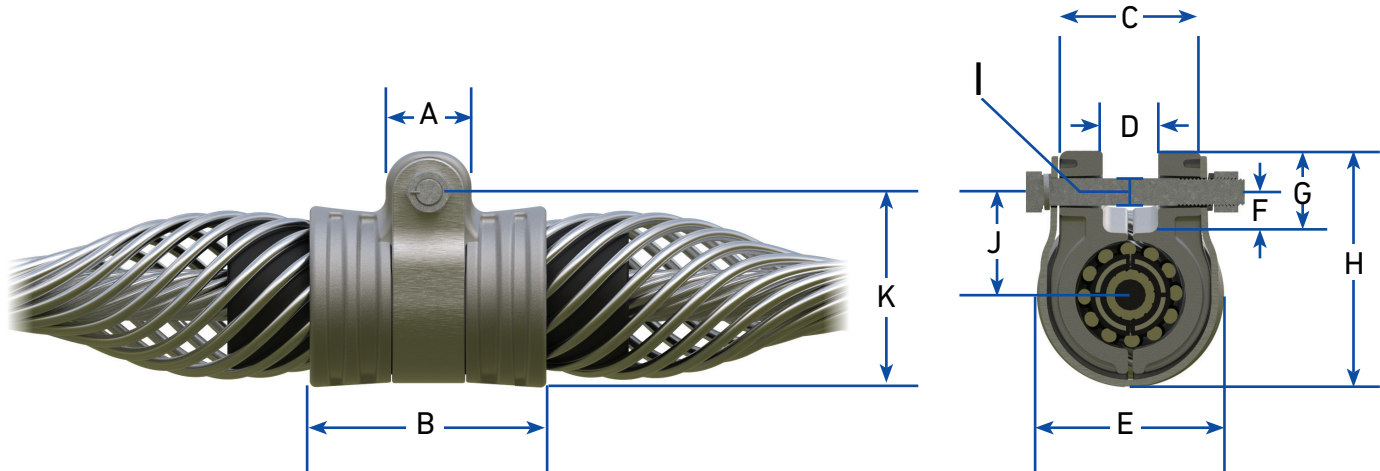


Component	Description
Housing Assembly	Comprised of two housing halves and a strap. Features a cavity designed to accept the assembled outer rods, inserts, and SRR. Housing halves are applied over the outer rods and held together with a strap. Housing halves and strap are secured together with a bolt, lock washer, and a lock nut. Secured assembly can attach to a pole or structure with various hardware fittings such as a Y-Clevis, Clevis Eye, Chain Link, or Anchor Shackle.
Insert Halves	Insert halves are applied over the SRR and held in place by the outer rods. Halves are slotted to accept cables with diameters up to 1.190" (30.1 mm) and are designed to cushion the rods under loads; hourglass shape of the insert creates a wedge-action grip when unbalanced loads exist.
Structural Reinforcing Rods (SRR)	Aluminum alloy rods placed directly onto the cable provide additional protection to the cable jacket and increase longitudinal holding. Rod ends are flared to protect the cable from damage during installation, unbalanced loading, or cable motion.
Outer Rods	Used to secure the inserts to the SRR and help increase longitudinal and vertical holding strength.



## DIMENSIONS

The dimensions of the **FIBERLIGN® Dielectric Suspension** are important to know in order to select a proper attachment fitting such as a Y-Clevis, Clevis Eye, Chain Link, or an Anchor Shackle, and for proper placement on the pole or structure. The table below lists the dimensions and maximum vertical load ratings for each suspension assembly based on its cable range.

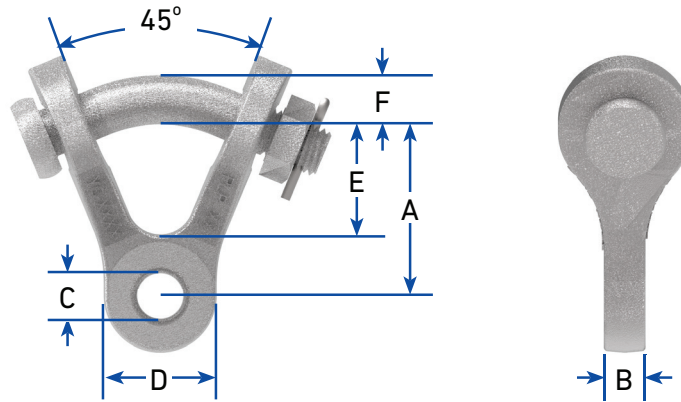


### FIBERLIGN Dielectric Suspension

Cable Diameter Range	Dimensions											Maximum Vertical Load
	in (mm)											
in (mm)	A	B	C	D	E	F	G	H	I	J	K	lb
0.354 – 0.458 (9.0 – 11.6)	1-3/4 (44.5)	3-3/4 (95.3)	2-1/4 (57.2)	3/4 (19.1)	2-3/16 (55.6)	1 (25.4)	1-7/8 (47.6)	4-7/16 (112.7)	5/8 (15.9)	2-5/32 (54.8)	3-9/16 (90.5)	15,000
0.459 – 0.565 (11.7 – 14.3)	2 (50.8)	4-17/32 (115.1)	2-11/16 (68.3)	7/8 (22.2)	3-5/16 (84.1)	1 (25.4)	2 (50.8)	5 (127.0)	5/8 (15.9)	2-11/32 (59.5)	4 (101.6)	20,000
0.566 – 0.625 (14.4 – 15.8)	2 (50.8)	5 (127.0)	2-15/16 (74.6)	7/8 (22.2)	3-11/16 (93.7)	1 (25.4)	2 (50.8)	5-3/8 (136.5)	5/8 (15.9)	2-17/32 (64.3)	4-3/8 (111.1)	20,000
0.626 – 0.786 (15.9 – 19.9)	2-1/4 (57.2)	5-1/2 (139.7)	3-1/2 (88.9)	1-3/16 (30.2)	4-5/32 (105.6)	1 (25.4)	2-1/8 (54.0)	5-29/32 (150.0)	5/8 (15.9)	2-45/64 (68.7)	4-25/32 (121.4)	25,000
0.787 – 0.977 (20.0 – 24.8)	2-1/4 (57.2)	6 (152.4)	3-5/8 (92.1)	1-1/4 (31.8)	4-13/16 (118.2)	1-1/4 (31.8)	2-3/8 (60.3)	6-11/16 (169.9)	3/4 (19.1)	3-5/32 (80.2)	5-9/16 (141.3)	25,000
0.978 – 1.016 (24.9 – 25.8)	2-1/4 (57.2)	6-1/2 (165.1)	4-1/8 (104.8)	1-3/8 (34.9)	5-1/16 (128.6)	1-1/8 (28.6)	2-1/4 (57.2)	6-5/8 (168.3)	3/4 (19.1)	2-21/32 (67.5)	5-1/2 (139.7)	25,000
1.017 – 1.057 (25.9 – 26.8)	2-1/4 (57.2)	6-1/2 (165.1)	4-1/8 (104.8)	1-3/8 (34.9)	5-1/16 (128.6)	1-1/8 (28.6)	2-1/4 (57.2)	6-5/8 (168.3)	3/4 (19.1)	2-21/32 (67.5)	5-1/2 (139.7)	25,000
1.058 – 1.079 (26.9 – 27.4)	2-1/2 (63.5)	7 (177.8)	4-11/16 (119.1)	2-1/4 (57.2)	5-19/32 (142.1)	1-1/8 (28.6)	2-3/8 (60.3)	7-1/4 (184.2)	3/4 (19.1)	3-3/16 (81.0)	6 (152.4)	25,000
1.080 – 1.112 (27.5 – 28.2)	2-1/2 (63.5)	7 (177.8)	4-11/16 (119.1)	2-1/4 (57.2)	5-19/32 (142.1)	1-1/8 (28.6)	2-3/8 (60.3)	7-1/4 (184.2)	3/4 (19.1)	3-3/16 (81.0)	6 (152.4)	25,000
1.113 – 1.149 (28.3 – 29.2)	2-1/2 (63.5)	7 (177.8)	4-11/16 (119.1)	2-1/4 (57.2)	5-19/32 (142.1)	1-1/8 (28.6)	2-3/8 (60.3)	7-1/4 (184.2)	3/4 (19.1)	3-3/16 (81.0)	6 (152.4)	25,000
1.150 – 1.190 (29.3 – 30.2)	2-1/2 (63.5)	7 (177.8)	4-11/16 (119.1)	2-1/4 (57.2)	5-19/32 (142.1)	1-1/8 (28.6)	2-3/8 (60.3)	7-1/4 (184.2)	3/4 (19.1)	3-3/16 (81.0)	6 (152.4)	25,000

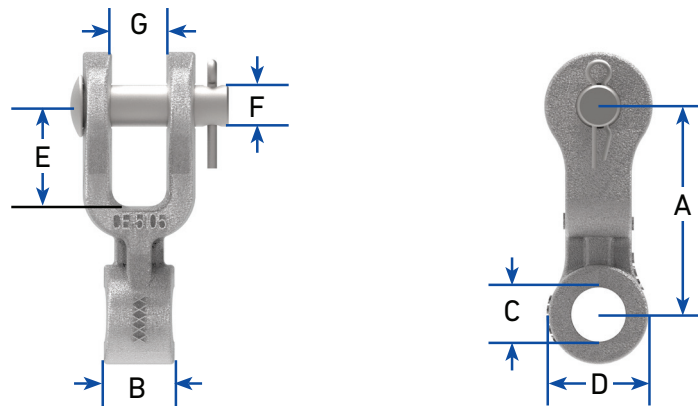
## FITTINGS

PLP offers Y-Clevises and Clevis Eyes that can be ordered separately to attach the **FIBERLIGN® Dielectric Suspension** to a pole or structure. To select the proper size fitting, identify the outside diameter of the cable and select the Y-Clevis or Clevis Eye from the tables below. PLP also offers a 25,000 lb Anchor Shackle (**Catalog Number: 72905002**) that can be ordered separately. For all other attachment fittings that are not offered, compare the dimensions of the fitting with the dimensions given for the Dielectric Suspension on the previous page to ensure a proper fit.



### Y-Clevis Eye

Catalog Number	Cable Diameter Range		Dimensions						Maximum Vertical Load
			in (mm)						
	in	mm	A	B	C	D	E	F	lb
YC-5206	0.354 – 0.458	9.0 – 11.6	2-7/16 (61.9)	5/8 (15.9)	11/16 (17.5)	1-5/8 (41.3)	1-5/8 (41.3)	3/4 (19.1)	15,000
YC-5207	0.459 – 0.625	11.7 – 15.9	2-7/16 (61.9)	3/4 (19.1)	11/16 (17.5)	1-5/8 (41.3)	1-5/8 (41.3)	3/4 (19.1)	20,000
YC-5209	0.626 – 1.057	16.0 – 26.8	2-7/16 (61.9)	1-1/16 (27.0)	13/16 (20.6)	1-5/8 (41.3)	1-5/8 (41.3)	3/4 (19.1)	25,000
YC-5211	1.058 – 1.208	26.9 – 30.7	2-7/16 (61.9)	2-1/8 (54.0)	13/16 (20.6)	1-5/8 (41.3)	1-5/8 (41.3)	3/4 (19.1)	25,000

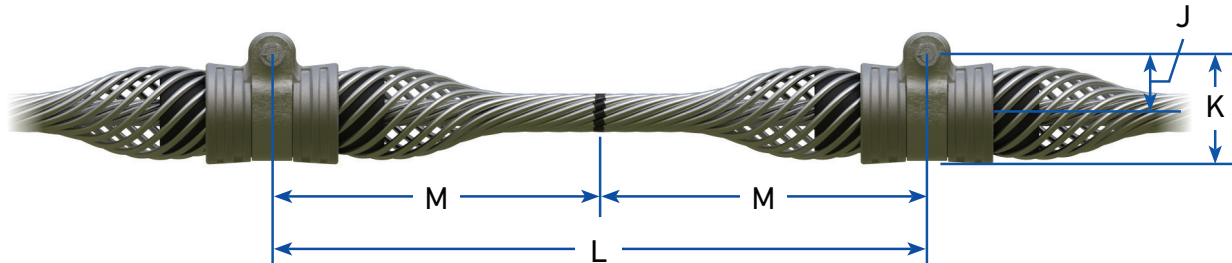


### Clevis Eye

Catalog Number	Cable Diameter Range		Dimensions							Maximum Vertical Load
			in (mm)							
	in	mm	A	B	C	D	E	F	G	lb
CE-5259	0.354 – 0.458	9.0 – 11.6	3-1/8 (79.4)	1/2 (12.7)	11/16 (17.5)	1-1/2 (38.1)	1-1/2 (38.1)	5/8 (15.9)	13/16 (20.6)	15,000
CE-5261	0.459 – 0.625	11.7 – 15.9	3-1/8 (79.4)	3/4 (19.1)	11/16 (17.5)	1-1/2 (38.1)	1-1/2 (38.1)	5/8 (15.9)	13/16 (20.6)	20,000
CE-5105	0.626 – 1.057	16.0 – 26.8	3-1/8 (79.4)	1-1/16 (27.0)	13/16 (20.6)	1-1/2 (38.1)	1-1/2 (38.1)	5/8 (15.9)	13/16 (20.6)	25,000
CE-5106	1.058 – 1.208	26.9 – 30.7	3-1/8 (79.4)	2-1/8 (54.0)	13/16 (20.6)	1-1/2 (38.1)	1-1/2 (38.1)	5/8 (15.9)	13/16 (20.6)	25,000

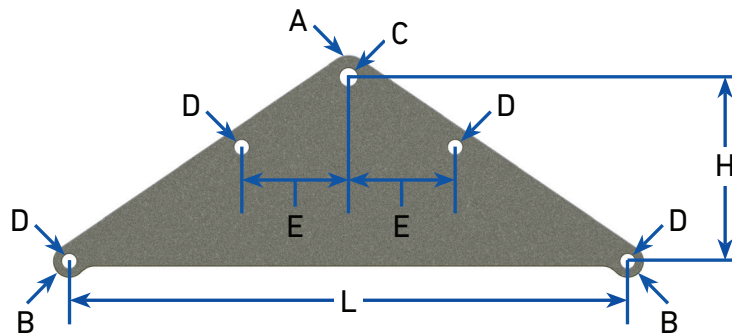
## DIMENSIONS

A custom **FIBERLIGN Dielectric Double Suspension** is offered for applications that have large line angles up to 80 degrees. Its two suspensions are spaced apart but share the same structural reinforcing rods and outer rods. A Yoke Plate is used to attach both suspensions to a pole or a structure. For additional details on how to order the FIBERLIGN Dielectric Double Suspension, please contact PLP.



### FIBERLIGN Dielectric Double Suspension

Cable Diameter Range		Dimensions				Maximum Vertical Load
		in (mm)				
in	mm	J	K	L	M	lb
0.354 – 0.458	9.0 – 11.6	2-5/32 (54.8)	3-9/16 (90.4)	18 (457.2)	9 (228.6)	30,000
0.459 – 0.565	11.7 – 14.3	2-11/32 (59.5)	4 (101.6)	18 (457.2)	9 (228.6)	40,000
0.566 – 0.625	14.4 – 15.8	2-17/32 (64.3)	4-3/8 (111.1)	22 (558.8)	11 (279.4)	40,000
0.626 – 0.786	15.9 – 19.9	2-45/64 (68.7)	4-25/32 (121.4)	26 (660.4)	13 (330.2)	50,000
0.787 – 0.855	20.0 – 21.6	3-5/32 (80.2)	5-9/16 (141.3)	29 (736.6)	14-1/2 (368.3)	50,000
0.856 – 1.057	21.7 – 26.8	2-31/32 (75.4)	5-1/2 (139.7)	32 (812.8)	16 (406.4)	50,000
1.058 – 1.208	26.9 – 30.7	3-3/16 (81.0)	6 (152.4)	37 (939.8)	18-1/2 (469.9)	50,000



### Yoke Plate

Catalog Number	Cable Diameter Range		Dimensions							Plate Thickness
			in (mm)							
	in	mm	A (Radius)	B (Radius)	C (Dia.)	D (Dia.)	E	L	H	in (mm)
YP-5908	0.354 – 0.565	9.0 – 14.3	1-1/4 (31.8)	15/16 (23.8)	1 (25.4)	13/16 (20.6)	3-1/2 (88.9)	18 (457.2)	6-1/4 (158.8)	5/8 (15.9)
YP-5909	0.566 – 0.625	14.4 – 15.8	1-1/4 (31.8)	15/16 (23.8)	1 (25.4)	13/16 (20.6)	4-3/16 (106.4)	22 (558.8)	7-1/4 (184.2)	5/8 (15.9)
YP-5910	0.626 – 0.786	15.9 – 19.9	1-1/4 (31.8)	15/16 (23.8)	1 (25.4)	13/16 (20.6)	4-15/16 (125.4)	26 (660.4)	8-1/2 (215.9)	3/4 (19.1)
YP-5911	0.787 – 0.855	20.0 – 21.6	1-1/4 (31.8)	15/16 (23.8)	1 (25.4)	13/16 (20.6)	5-1/2 (139.7)	29 (736.6)	9-1/2 (241.3)	3/4 (19.1)
YP-5912	0.856 – 1.057	21.7 – 26.8	1-1/4 (31.8)	15/16 (23.8)	1 (25.4)	13/16 (20.6)	6-1/8 (155.6)	32 (812.8)	10-1/2 (266.7)	3/4 (19.1)
YP-5913	1.058 – 1.208	26.9 – 30.7	1-1/4 (31.8)	15/16 (23.8)	1 (25.4)	13/16 (20.6)	7-1/16 (179.4)	37 (939.8)	11-3/4 (298.5)	3/4 (19.1)



## ORDERING INFORMATION

Select the appropriate **FIBERLIGN Dielectric Suspension** based on the diameter of the cable on which the suspension will be installed. If the cable you are using does not fall within any of the published ranges, or for trunnion or bracket-type mounting options, please contact PLP for further assistance. For other Dielectric Suspension accessories, refer to the previous pages.

### FIBERLIGN Dielectric Suspension

Catalog Number	Cable Diameter Range		SRR Specifications						Outer Rod Specifications					
	in	mm	Rod Length		Rod Diameter		Rods per Set	Color Code	Rod Length		Rod Diameter		Rods per Set	Color Code
			in	m	in	mm			in	m	in	mm		
430010267	0.354 – 0.381	8.9 – 9.6	80	2.03	0.146	3.7	9	Blue	42	1.07	0.204	5.2	11	Blue
43003195	0.399 – 0.418	10.1 – 10.6	80	2.03	0.146	3.7	10	Yellow	42	1.07	0.204	5.2	11	Yellow
43001929	0.419 – 0.439	10.7 – 11.1	80	2.03	0.146	3.7	10	Black	42	1.07	0.204	5.2	11	Black
43009490	0.440 – 0.458	11.2 – 11.6	81	2.06	0.146	3.7	11	White	43	1.09	0.204	6.4	11	White
43003233	0.459 – 0.461	11.7 – 11.7	84	2.13	0.167	4.2	10	Purple	46	1.17	0.250	6.4	10	Orange
43003234	0.462 – 0.476	11.8 – 12.0	84	2.13	0.167	4.2	10	Purple	46	1.17	0.250	6.4	10	Purple
43004061	0.477 – 0.503	12.1 – 12.7	84	2.13	0.146	3.7	12	Orange	46	1.17	0.250	6.4	10	Orange
43004164	0.504 – 0.511	12.8 – 12.9	84	2.13	0.146	3.7	12	Red	46	1.17	0.250	6.4	10	Purple
43009922	0.512 – 0.536	13.0 – 13.6	87	2.21	0.167	4.2	11	Blue	49	1.24	0.250	6.4	11	Blue
43002246	0.537 – 0.559	13.7 – 14.1	87	2.21	0.167	4.2	11	Green	49	1.24	0.250	6.4	11	Green
43004100	0.560 – 0.565	14.2 – 14.3	87	2.21	0.167	4.2	11	Green	49	1.24	0.250	6.4	11	Green
43003235	0.566 – 0.573	14.4 – 14.5	92	2.34	0.182	4.6	11	Black	54	1.37	0.250	6.4	12	Black
43009945	0.574 – 0.598	14.6 – 15.1	92	2.34	0.182	4.6	11	Black	54	1.37	0.250	6.4	12	White
43009965	0.599 – 0.625	15.2 – 15.8	92	2.34	0.182	4.6	12	Brown	54	1.37	0.250	6.4	12	Brown
43003239	0.626 – 0.632	15.9 – 16.0	102	2.59	0.204	5.2	11	Red	63	1.60	0.310	7.9	11	Red
43009760	0.633 – 0.666	16.1 – 16.9	102	2.59	0.204	5.2	11	Red	63	1.60	0.310	7.9	11	Blue
43004965	0.667 – 0.682	17.0 – 17.3	102	2.59	0.204	5.2	12	Yellow	63	1.60	0.310	7.9	11	Green
43009947	0.683 – 0.710	17.4 – 18.0	102	2.59	0.204	5.2	12	Yellow	63	1.60	0.310	7.9	11	Yellow
43004991	0.711 – 0.728	18.1 – 18.4	102	2.59	0.204	5.2	12	White	63	1.60	0.310	7.9	12	Black
43009868	0.729 – 0.744	18.5 – 18.8	102	2.59	0.204	5.2	12	White	63	1.60	0.310	7.9	12	White
43006274	0.745 – 0.750	18.9 – 18.9	102	2.59	0.204	5.2	12	White	63	1.60	0.310	7.9	12	White
43009842	0.751 – 0.786	19.0 – 19.9	102	2.59	0.204	5.2	13	White	63	1.60	0.310	7.9	12	Brown
43003240	0.787 – 0.814	20.0 – 20.6	111	2.82	0.250	6.4	11	Green	72	1.83	0.365	9.3	11	Green
43003058	0.815 – 0.845	20.7 – 21.4	111	2.82	0.250	6.4	12	Yellow	72	1.83	0.365	9.3	11	Yellow
43003028	0.846 – 0.855	21.5 – 21.6	111	2.82	0.250	6.4	12	Green	72	1.83	0.365	9.3	12	Blue
43003230	0.856 – 0.894	21.7 – 22.6	119	3.02	0.250	6.4	12	Black	80	2.03	0.365	9.3	12	Black
43003079	0.895 – 0.907	22.7 – 22.9	119	3.02	0.250	6.4	12	White	80	2.03	0.365	9.3	12	White
43003241	0.908 – 0.916	23.0 – 23.2	119	3.02	0.250	6.4	13	Purple	80	2.03	0.365	9.3	12	Purple
43003242	0.917 – 0.929	23.3 – 23.5	119	3.02	0.250	6.4	13	Brown	80	2.03	0.365	9.3	12	Brown
43003243	0.930 – 0.942	23.6 – 23.9	119	3.02	0.250	6.4	13	Red	80	2.03	0.36	9.3	12	Red
43003244	0.943 – 0.977	24.0 – 24.7	119	3.02	0.250	6.4	13	Orange	80	2.03	0.365	9.3	13	Orange
430010305	0.978 – 1.016	24.8 – 25.7	118	3.00	0.250	6.4	13	Purple	80	2.03	0.365	9.3	12	Purple
430010306	1.017 – 1.057	25.8 – 26.8	118	3.00	0.250	6.4	14	Red	80	2.03	0.365	9.3	12	Red
430010307	1.058 – 1.079	26.9 – 27.3	133	3.38	0.250	6.4	14	Blue	95	2.41	0.365	9.3	13	Blue
430010308	1.080 – 1.112	27.4 – 28.1	133	3.38	0.250	6.4	14	Green	95	2.41	0.365	9.3	13	Green
430010309	1.113 – 1.149	28.2 – 29.1	133	3.38	0.250	6.4	15	Yellow	95	2.41	0.365	9.3	13	Yellow
43003778	1.150 – 1.190	29.2 – 30.1	131	3.33	0.250	6.4	15	Red	92	2.34	0.365	9.3	15	Red

**NOTE:** To order the FIBERLIGN Dielectric Double Suspension, please contact PLP.