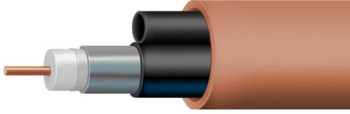


E20-2" SDR13.5-715JCASS-12.7MB

E20® Coaxial/Microduct Hybrid Buried Cable



- E20 is a solution that enables service providers the ability to bridge HFC networks to FTTx. The E20 composite coaxial/fiber product line combines fiber, microducts, and coaxial cable preinstalled in conduit
- Serves businesses in a new commercial serving area
- Mitigates future cost of fiber installation
- Pre-installed in high density PE conduit for added physical protection
- One-step installation saves on construction cost
- Ideal for commercial data customers that also require video
- All products tested to industry standards

OBSOLETE

Product Classification

Product Type	Coaxial fiber cable-in-conduit
Product Brand	E20®

General Specifications

Cable Series	QR 715
---------------------	--------

Dimensions

Height	60.325 mm 2.375 in
Width	60.325 mm 2.375 in
Outer Jacket Thickness, nominal	4.724 mm 0.186 in

Material Specifications

Outer Jacket Material	High density polyethylene (HDPE)
------------------------------	----------------------------------

Mechanical Specifications

Minimum Bend Radius	660.4 mm 26 in
Pulling Tension, maximum	1,170.268 kg 2580 lb

Environmental Specifications

Environmental Space	Buried
----------------------------	--------

E20-2" SDR13.5-715JCASS-12.7MB

Packaging and Weights

Weight, gross 1,142.91 kg/km | 768 lb/kft

Regulatory Compliance/Certifications

Agency

ISO 9001:2015



Classification

Designed, manufactured and/or distributed under this quality management system

Included Products

- 360000000
12.7MB DUCT EMPTY – ConQuest® Empty Conduit, 12.7 mm, black
- 360000013
12.7MB DUCT EMPTY – ConQuest® Empty Conduit, 12.7 mm, black
- 5513592
QR® 715 JCASS – 75 Ohm QR® Trunk and Distribution Cable, black PE jacket, flooded for underground
- CX3799839
200T135 EMPTY DUCT COEX – ConQuest® Empty Conduit, 2 in, SDR 13.5, terracotta

360000000 | 12.7MB DUCT EMPTY

ConQuest® Empty Conduit, 12.7 mm, black



Product Classification

Product Type	Empty conduit
Product Brand	ConQuest®

General Specifications

Color	Black
Conduit Type	Non-toneable
Density Test Method	ASTM D792A
Density, maximum	0.955 g/cm ³ 0.035 lb/in ³
Density, minimum	0.941 g/cm ³ 0.034 lb/in ³
Design Standard	ASTM D3350-05
Wall Type	Smooth

Dimensions

Inner Diameter, nominal	10.008 mm 0.394 in
Outer Diameter, nominal	12.7 mm 0.5 in
Wall Thickness, minimum	1.346 mm 0.053 in
Nominal Size	12.7 mm

Material Specifications

Flexural Modulus, minimum	551.581 N/mm ² 80000 psi
Flexural Property Test Method	ASTM D790
Hydrostatic Design Basis	Not pressure rated
Hydrostatic Design Test Method	ASTM D2837
Material Type	High density polyethylene (HDPE)

360000000 | 12.7MB DUCT EMPTY

Melt Flow Rate Test Method ASTM D1238

Melt Flow Rate, maximum 0.39 g/10 min

Mechanical Specifications

Minimum Bend Radius, unsupported 152.4 mm | 6 in

Tensile Property Test Method ASTM D638

Tensile Strength at yield, minimum 20.684 N/mm² | 3000 psi

Pulling Tension, maximum 86.183 kg | 190 lb

Environmental Specifications

Environmental Stress Crack Resistance Failure rate of 10% within 96 hours

Environmental Stress Test Method ASTM D1693, ESCR Condition B

Packaging and Weights

Weight, net 46.133 kg/km | 31 lb/kft

Regulatory Compliance/Certifications

Agency

ISO 9001:2015

Classification

Designed, manufactured and/or distributed under this quality management system



* Footnotes

Environmental Stress Crack Resistance ESCR—Environmental Stress Crack Resistance

360000013 | 12.7MB DUCT EMPTY

ConQuest® Empty Conduit, 12.7 mm, black



Product Classification

Product Type	Empty conduit
Product Brand	ConQuest®

General Specifications

Color	Black
Conduit Type	Non-toneable
Density Test Method	ASTM D792A
Density, maximum	0.955 g/cm ³ 0.035 lb/in ³
Density, minimum	0.941 g/cm ³ 0.034 lb/in ³
Design Standard	ASTM D3350-05
Wall Type	Smooth

Dimensions

Inner Diameter, nominal	10.008 mm 0.394 in
Outer Diameter, nominal	12.7 mm 0.5 in
Wall Thickness, minimum	1.346 mm 0.053 in
Nominal Size	12.7 mm

Material Specifications

Flexural Modulus, minimum	551.581 N/mm ² 80000 psi
Flexural Property Test Method	ASTM D790
Hydrostatic Design Basis	Not pressure rated
Hydrostatic Design Test Method	ASTM D2837
Material Type	High density polyethylene (HDPE)

360000013 | 12.7MB DUCT EMPTY

Melt Flow Rate Test Method	ASTM D1238
Melt Flow Rate, maximum	0.39 g/10 min

Mechanical Specifications

Minimum Bend Radius, unsupported	152.4 mm 6 in
Tensile Property Test Method	ASTM D638
Tensile Strength at yield, minimum	20.684 N/mm ² 3000 psi
Pulling Tension, maximum	86.183 kg 190 lb

Environmental Specifications

Environmental Stress Crack Resistance	Failure rate of 10% within 96 hours
Environmental Stress Test Method	ASTM D1693, ESCR Condition B

Packaging and Weights

Weight, net	46.133 kg/km 31 lb/kft
--------------------	--------------------------

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



* Footnotes

Environmental Stress Crack Resistance ESCR—Environmental Stress Crack Resistance

75 Ohm QR® Trunk and Distribution Cable, black PE jacket, flooded for underground



Product Classification

Product Type	Coaxial hardline cable
Product Brand	QR®

General Specifications

Cable Type	715 Series
Construction Type	Welded
Jacket Color	Black
Short Description	QR 715 JCASS SM PR997

Dimensions

Cable Length	914.4 m 3000 ft
Diameter Over Center Conductor, nominal	4.216 mm 0.166 in
Diameter Over Dielectric, nominal	17.424 mm 0.686 in
Diameter Over Jacket, nominal	19.939 mm 0.785 in
Diameter Over Outer Conductor, nominal	18.161 mm 0.715 in
Jacket Thickness, nominal	0.889 mm 0.035 in
Outer Conductor Thickness, nominal	0.368 mm 0.014 in

Electrical Specifications

Capacitance	50.197 pF/m 15.3 pF/ft
Capacitance Tolerance	±1.0 pF/ft
Characteristic Impedance	75 ohm
Characteristic Impedance Tolerance	±2 ohm
dc Resistance Note	Nominal values based on a standard condition of 20 °C (68 °F)

5513592 | QR® 715 JCASS

dc Resistance, Inner Conductor, nominal	1.903 ohms/km 0.58 ohms/kft
dc Resistance, Loop, nominal	3.281 ohms/km 1 ohms/kft
dc Resistance, Outer Conductor, nominal	1.378 ohms/km 0.42 ohms/kft
Jacket Spark Test Voltage	5000 Vac
Nominal Velocity of Propagation (NVP)	88 %
Operating Frequency Band	5–3000 MHz
Structural Return Loss	24 dB @ 1003–1218 MHz 24 dB @ 1219–1794 MHz 30 dB @ 5–1002 MHz
Structural Return Loss, Grade N	=24 dB @ 1003–1218 MHz =24 dB @ 1219–1794 MHz =30 dB @ 5–1002 MHz

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
5.0	0.36	0.11
55.0	1.21	0.37
85.0	1.51	0.46
204.0	2.4	0.73
211.0	2.43	0.74
250.0	2.66	0.81
300.0	2.92	0.89
350.0	3.18	0.97
400.0	3.44	1.05
450.0	3.67	1.12
500.0	3.9	1.19
550.0	4.1	1.25
600.0	4.3	1.31
750.0	4.89	1.49
865.0	5.31	1.62
1002.0	5.76	1.75
1218.0	6.43	1.96
1500.0	7.44	2.27
1794.0	8.3	2.53
1800.0	8.32	2.54
2000.0	8.88	2.71
2200.0	9.42	2.87

5513592 | QR® 715 JCASS

2500.0	10.21	3.11
2700.0	10.72	3.27
3000.0	11.46	3.49

Material Specifications

Center Conductor Material	Copper-clad aluminum
Dielectric Material	Foam PE
Jacket Material	PE
Outer Conductor Material	Aluminum

Mechanical Specifications

Pulling Tension, maximum	154.221 kg 340 lb
---------------------------------	---------------------

Environmental Specifications

Corrosion Protection	Migraheal®
Environmental Space	Buried

Packaging and Weights

Packaging Type	Reel
Weight, gross	305.074 kg/km 205 lb/kft

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



CX3799839 | 200T135 EMPTY DUCT COEX

ConQuest® Empty Conduit, 2 in, SDR 13.5, terracotta



Product Classification

Product Type	Empty conduit
Product Brand	ConQuest®

General Specifications

Color	Terracotta
Conduit Type	Non-toneable
Density Test Method	ASTM D792A
Density, maximum	0.955 g/cm ³ 0.035 lb/in ³
Density, minimum	0.941 g/cm ³ 0.034 lb/in ³
Design Standard	ASTM D3350-05
Wall Type	Smooth

Dimensions

Length	762 m 2500 ft
Inner Diameter, nominal	50.876 mm 2.003 in
Outer Diameter, nominal	60.325 mm 2.375 in
Wall Thickness Designation	SDR 13.5
Wall Thickness, minimum	4.47 mm 0.176 in
Nominal Size	2 in

Material Specifications

Flexural Modulus, minimum	551.581 N/mm ² 80000 psi
Flexural Property Test Method	ASTM D790
Hydrostatic Design Basis	Not pressure rated

CX3799839 | 200T135 EMPTY DUCT COEX

Hydrostatic Design Test Method	ASTM D2837
Material Type	High density polyethylene (HDPE)
Melt Flow Rate Test Method	ASTM D1238
Melt Flow Rate, maximum	0.39 g/10 min

Mechanical Specifications

Minimum Bend Radius, unsupported	660.4 mm 26 in
Tensile Property Test Method	ASTM D638
Tensile Strength at yield, minimum	20.684 N/mm ² 3000 psi
Pulling Tension, maximum	1,170.268 kg 2580 lb

Environmental Specifications

Environmental Stress Crack Resistance	Failure rate of 10% within 96 hours
Environmental Stress Test Method	ASTM D1693, ESCR Condition B

Packaging and Weights

Weight, net	791.703 kg/km 532 lb/kft
--------------------	----------------------------

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



* Footnotes

Environmental Stress Crack Resistance ESCR—Environmental Stress Crack Resistance