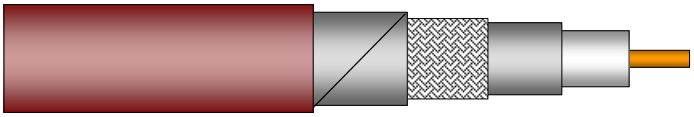
02Y(St)C(St)H 4.2/11.5AF (CK50)

Coaxial according to CERN specification 461 REV. 6



Application

The radio-frequency cables described in this chapter are used in transmitter and receiver installations in radio communications as well as in the entire field of commercial radio-frequency technology and electronics.

Standards

DIN 47264, EN 50117-1, IEC 61196-1

Flame resistance

acc. to IEC 60332-3-24

Construction

Inner conductor	copper wire, bare, diameter 4.22 ± 0.01 mm
Insulation	Foam-PE, diameter 11.5 ± 0.1
Outer conductor	Al-PETP-Al-foil + copper braid, tinned, 86% optical coverage + Al-PETP-Al-foil
Sheath	FRNC diameter 15.1 ± 0.2
Colour	brown, RAL 8017

Mechanical properties

Minimum bending radius	without load	5 x outer diameter
	with load	10 x outer diameter
Temperature	during operation	-30° C to + 70° C
	during installation	-15° C to + 55° C
Corrosivity		IEC 60754-2

Electrical properties

at 20°C

DC resistance	Inner conductor	1.3 Ω/km
	Outer conductor	3.6 Ω/km
Mutual capacitance		84 pF/m
Velocity ratio		78 %
Characteristic impedance	200 MHz	50 Ω ± 2 Ω
Operating voltage		2.0 kV_{rms}
Test voltage	Inner/Outer conductor	5.0 kV_{rms}
Partial discharge test		2.2 kV_{rms}
Insulation resistance		≥ 5 GΩ*km

02Y(St)C(St)H 4.2/11.5AF (CK50)

Electrical data

at 20°C

Frequency (MHz)	**Attenuation (dB/100m)**	**Max. power rating (Watts)** (ambient temperature 40°C and max. inner conductor temperature 100°C)	**Return loss (dB)** several peaks are allowed	
	nominal	maximum		
1	0.3		**Frequency (MHz)**	
10	0.7			
100	2.5			
200	4.0			
800	8.2			
3000	16.9			

All further requirements acc. to CERN Spec. 461 REV. 6

Technical data

Product code	Desig-nation	Type	Brand name	Outer diameter mm	Weight kg/km	Standard delivery length m	Drum size *OWD	Gross weight kg	Copper content	Tensile force N
1002786	02Y(St)C (St)H	4.2/11.5 AF	CK50	15.1	325	1000	1000/500/ 560	395	180.6	1115

*OWD (One way drum)