

# H2000 FLEX® 50 OHM

H 2000 Flex® for operations in VHF-, UHF- and SHF-bands



## Characteristics of H 2000 Flex

### Construction and thermic characteristics

Center conductor	Bare copper, Ø 2,62 mm
Insulation	Physical foam, waterresistant Ø = 7,15 mm
Outer conductor 1	Copper foil, plastic coated
Outer conductor 2	Copper braid
Sheath	PVC uv-resistant
Bending radius	50 mm minimum
Weight	14 kg / 100 m
Temperature range for installation	-40°C - + 80°C More than -5°C
Strength	1300 N
Electrical Characteristics	
Impedance resistance	50 ± 2 Ohm
Center conductor	3,15 Ohm / 1000 m
Outer conductor	11,0 Ohm / 1000 m
Loop	14,2 Ohm / 1000 m
Voltage max	5000 Volt
Capacity	80 pF/m
Screen 10-1000 MHz	≥ 90 dB
Velocity ratio	0,883
Return loss	
5 - 470 MHz	> 23 dB
470 - 862 MHz	> 20 dB
862 - 2150 MHz	> 18 dB

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## Attenuation 100 m H2000 Flex

MHz	dB	MHz	db
7,0	1,0	14	1,4
21	1,8	28	2,0
50	2,7	100	3,9
144	4,8	432	8,5
800	11,9	900	12,8
1296	15,7	2320	21,8
5000	34,8	10000	54,0

## Power rating

frequency MHz	temperature 30°C	temperature 20°C
7	6,3 KW	7,6 KW
14	4,5 KW	5,4 KW
21	3,6 KW	4,4 KW
28	3,2 KW	3,8 KW
50	2,4 KW	2,8 KW
144	1,4 KW	1,6 KW
432	0,8 KW	0,9 KW
900	0,5 KW	0,6 KW
1296	0,4 KW	0,5 KW
2320	0,3 KW	0,4 KW
5000	0,2 KW	0,3 KW
10000	0,1 KW	0,2 KW



1. The internal conductor, 2,62 mm in diameter is made of soft annealed copper.
2. For the dielectric we use a physical foam which enables very low attenuation values, this highly elastic isolating material gives you a minimum bending radius of 50 mm. The external diameter of the foam dielectric material is 7,15 mm with a tolerance of +0,15 mm. the customer values of this foam dielectric material are total protection against water and moisture, the cable is also highly flexible and highly durable and perfect for installation in complicated areas or situations where normal cable can't or should not be used, the cable also has a very stable attenuation to a minimum of 3Ghz.
3. H 2000 Flex® double shielding is a perfect high quality solution for coaxial cable usage in high frequency bands. The copper foil is plastic coated and builds the heart of the external conductor.
4. The external coating is made of black PVC and is UV protected. The soft coating is ideal for rotating aerial systems which are also the most used aeriels from amateur radio operators. The external coating is 1,2 mm thick with a tolerance of ±0.1 mm and therefore has the same measurements as the classic RG213U cable and suitable for plugs and connections you would normally use for the RG213U cable.
5. No cost has been spared on copper. H 2000 Flex® contains 73 g/m of copper and because of this high copper content the attenuation values are lower as the tried and tested famous H100. It is really difficult to find a cable of 10,2 mm whose characteristics are better than those of H 2000 Flex
6. H 2000 Flex® has a weight of 14 kg per 100 meter.
7. There are many cables with foamed dielectric, nearly all of these cables are produced with chemical foam and are sensitive towards moisture. There is a test to check how cables behave if the environs are humid. Belden used a DAMP HEAT TEST according to the IEC rules. H 2000 Flex is tested over a period of 21 days with a temperature of 40°C and 93% humidity. After the test the attenuation values are not allowed to exceed 5% of the starting values. This test gives us an exact result and H 2000 Flex® fulfils these rules.
8. Temperature range.  
H 2000 Flex® has a working temperature of -40°C to +80°C and therefore can be used near enough anywhere in the world. The manufacturer recommends that the lowest installation temperature should not exceed -5°C.