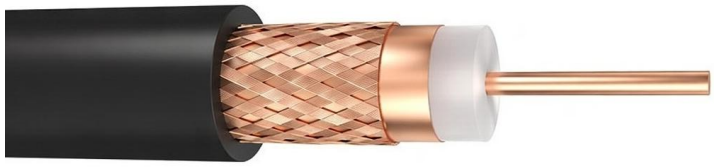
HUAPU CABLE

Coaxial Cables



75 Ω Physically-Foamed PE Insulated, PVC Sheathed Coaxial Cable [SYWV-75-5]

Standards: IEC 61196-1 (general specification), IEC 60728-1 (cable distribution networks), IEC 60096

Application

SYWV-75-5 is the workhorse 75 Ω drop cable for analog and digital television distribution networks (CATV, SMATV), satellite TV (DBS / DVB-S, after the LNB), closed-circuit television (CCTV) surveillance, and general broadband signal transmission from 5 MHz to 3 GHz. Suitable for indoor wiring, conduit, trunking, and outdoor pendant runs (PE-jacketed variant for direct sunlight).

Construction

Layer	Material	Diameter (mm)
1. Inner conductor	Solid bare annealed copper (Cu) — option: CCS (copper-clad steel)	1.00 ± 0.01
2. Dielectric	Physically foamed polyethylene (foam PE), gas-injected	4.80 ± 0.10
3. Inner shield (foil)	Aluminium-polyester (Al-PET) laminated tape, longitudinal	4.95 (over foil)
4. Outer shield (braid)	Tinned copper / aluminium-magnesium / CCA wire braid	5.30 (over braid)
5. Jacket	PVC (general indoor) — option: PE for outdoor / LSZH	6.80 ± 0.20

Electrical & Mechanical Properties

Parameter	Value
Characteristic impedance	75 ± 3 Ω
Operating frequency range	5 MHz – 3000 MHz (typical CATV / CCTV)
Nominal capacitance	53 pF/m
Velocity of propagation	≥ 83% (c)
DC resistance — inner conductor	≤ 55 Ω/km at 20 °C
DC resistance — outer conductor	≤ 8 Ω/km at 20 °C (foil + braid combined)
Insulation resistance	≥ 5 000 MΩ·km at 20 °C
Dielectric withstand voltage	1.5 kV DC / 1 min, no breakdown
Operating voltage (max.)	≤ 500 V RMS
Shielding effectiveness	≥ 75 dB (≥ 85 dB for quad-shield, 5–1000 MHz)
Return loss (structural)	≥ 20 dB, 5–1000 MHz; ≥ 18 dB, 1000–2150 MHz
Operating temperature	−25 °C to +60 °C
Storage temperature	−40 °C to +70 °C
Min. bending radius	≥ 10 × OD (single bend); ≥ 20 × OD (repeated)
Net weight	≈ 55 kg/km
Standard delivery length	100 m / 305 m coil; 500 m on wooden drum

Attenuation vs. Frequency (max., 20 °C)

Frequency (MHz)	Max. Attenuation (dB/100 m)	Frequency (MHz)	Max. Attenuation (dB/100 m)	Frequency (MHz)	Max. Attenuation (dB/100 m)	Frequency (MHz)	Max. Attenuation (dB/100 m)
5	1.5	50	4.0	100	5.5	200	8.0
400	11.0	500	12.5	750	15.5	800	16.0
900	17.0	1000	18.5	1500	23.0	1750	25.0
2000	27.5	2150	28.5	2400	30.5	3000	34.0