PROPERTIES OF WIRE AND CABLE INSULATING MATERIALS

Material	Dielectric Constant	Dissipation Factor	Capacitance	Temperature Range (℃)
PTFE	2.07	0.0003	95.9	-75 to +250
Polyethylene	2.3	0.0003	101.1	-65 to +80
Foam Polyethylene	1.29-1.64	0.0001	75.72-85.38	-65 to +100
Polyvinylchloride	3.0-8.0	0.07-0.16	115.47-188.56	-50 to +105
Polyamide	3.5-4.6	0.03-0.4	124.72-254.73	-60 to +120
Silicone Rubber	2.1-3.5	0.007-0.016	96.61-124.72	-70 to +250
Ethylene Propylene	2.24	0.00046	99.8	-40 to +105
FEP	2.1	0.0007	96.6	-70 to +200
Low Density PTFE	1.38-1.73	0.00005	78.3-87.7	-75 to +250
Foam FEP	1.45	0.0007	80.3	-75 to +200
Polyimide	3.0-3.5	0.002-0.003	115.5-124.7	-75 to +300
PFA	2.1	0.001	96.6	-75 to +260
ETFE	2.6	0.005	107.5	-75 to +150
ECTFE	2.5	0.0015	105.4	-65 to +150
PVDF	7.8	0.02	186.2	-75 to +125

Band Allocation Table

Radar Allocation						ITU Allocation
Band Code	Frequency Range	Metric Length	Typical Applications	Code	Frequency Range	ITU allocated radar-specific frequency bands(Third Section)
HF	3-30MHz	Ten Meters Wave	1. Wireless Communication 2. AM broadcast	HF	3-30MHz	——
VHF	30-300MHz	Meter Wave	1.Radio Navigation 2.Broadcast	VHF	30-300MHz	223-230MHz
UHF	30-1000MHz	Decimeter	1.GSM/WCDMA/SCDMA/LTE 2.WLAN/Buletooth, WIMAX 3.GPS 4.DVB 5.RFID	UHF	0.3-3GHz	420-450MHz; 890-942MHz; (216-450MHz 通常称作 P 波段)
L	1-2GHz					
S	2-4GHz					1215-1400MHz 2300-2500MHz 2700-3700MHz
C	4-8GHz		1.Broadcast satellite 2.Meteorological satellite 3.Earth exploration satellite 4.Radar 5.Radio Astronomy			4200-4400MHz; 5250-5925MHz;
X	8-12GHz	Centimeter wave		SHF	3-30GHz	8.5-10.68GHz
Ku	12-18GHz					13.4-14GHz; 15.7-17.7GHz;
K	18-27GHz					24.05-24.25GHz
Ka	27-40GHz	Millimeter Wave(8mm)	6.Radar 7.Radio Astronomy 8.Satellite communications	EHF	30-300GHz	33.4-36GHz
V	40-75GHz					59-64GHz
W	75-110GHz	Millimeter Wave(3mm) 100GHz				76-81GHz; 92-100GHz;
mm	110-300GHz					126-142GHz; 144-149GHz; 231-235GHz