

## Indoor communication cable technical requirements

### 1.General

Conductor	Solid-Bare annealed copper
Insulation	HDPE
Twisting	2 wires twisted
Cable Structure	25 pairs of basic unit
Composition of cable core	Each unit core Wrapped with single color ribbon
Filling	Core waterblocking Grease
Cable core wrapping	Wrapped with one polyester tape for 6Pairs , Wrapped with two polyester tape for 10-100Pairs
Sheath	PVC
Surface Printing	It will be printed as customer's requirement with batch produce.
Packing	Metal drum, Sealing Packaging, No fumigation

### 2.Cable Core Structure and Sheath Thickness

Conductor Nom. O.D. (mm)	Pairs	Cable Structure		Sheath Thickness (min)mm	Sheath Thickness (average)mm
		First	Second		
0.40 mm	1P	1		0.40	0.50
	4P	4		0.40	0.50
	6P	1+5		0.45	0.55
	10P	2+8		0.60	0.80
	20P	1+6+13		0.70	0.90
	25P	3+9+13		0.75	0.95
	30P	(8+9+8)+5		0.8	1.0
	50P	(12+13)*2		0.8	1.0
	100P	4*25		0.8	1.1
	150P	3*50		0.9	1.2

Conductor Nom. O.D. (mm)	Pairs	Cable Structure		Sheath Thickness (min)mm	Sheath Thickness (average)mm
		First	Second		
0.50 mm	1P	1		0.40	0.50
	4P	4		0.40	0.50
	6P	1+5		0.45	0.60
	10P	2+8		0.60	0.80
	20P	1+6+13		0.70	0.90
	25P	3+9+13		0.75	1.0
	30P	(8+9+8)+5		0.8	1.0
	50P	(12+13)*2		0.8	1.1
	100P	4*25		0.8	1.2

### 3. Insulation Chromatogram

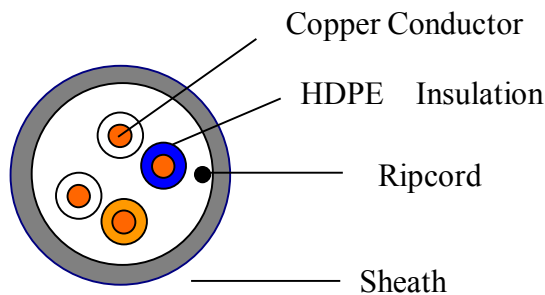
Number	Insulation Chromatogram	Number	Insulation Chromatogram
1	White-blue	14	Black-brown
2	White-orange	15	Black-grey
3	White-green	16	Yellow-blue
4	White-brown	17	Yellow-orange
5	White-grey	18	Yellow-green
6	Red-blue	19	Yellow-brown
7	Red-orange	20	Yellow-grey
8	Red-green	21	Purple-blue
9	Red-brown	22	Purple-orange
10	Red-grey	23	Purple-green
11	Black-blue	24	Purple-brown
12	Black-orange	25	Purple-grey
13	Black-green		

### 4. Electrical Performance Requirements

Item	0.40mm	0.50mm
Direct Current Resistance of Single conductor (Maximum) ohm/km	148.0	98
Imbalance of Direct Current Resistance to pair (Maximum) %	5.0	
Insulation resistance of each single insulated conductor to other conductors shield DC 500V (M·ohm/km)	>3000	
Working Capacitance (800Hz/km) nF/km Maximum	10 pairs ≤58 >10 pairs ≤57	
Electrical Strength DC Sustainable Time Between conductor and conductor	1min 1KV	

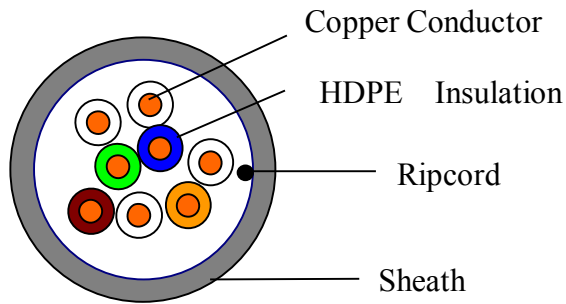
### 5. Structure Drawing

(一) 2Pairs Cable Structure

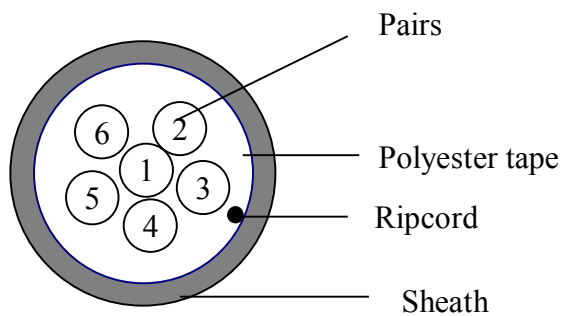


#### 2. Ribbon Chromatogram

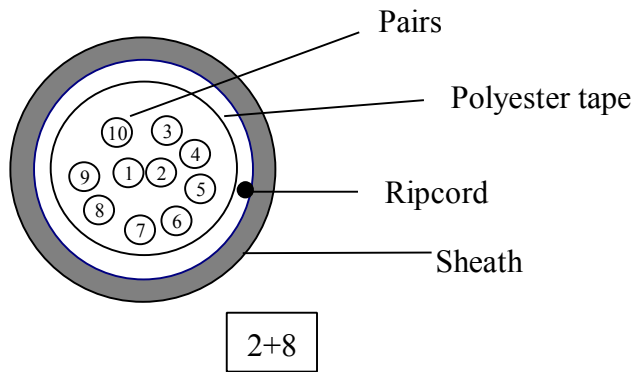
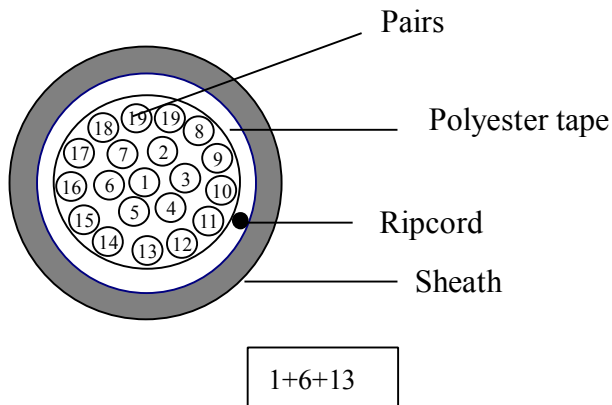
Number	Ribbon Chromatogram
1	White Blue
2	White Orange

**(二) 4Pairs Cable Structure**

**2、Ribbon Chromatogram**

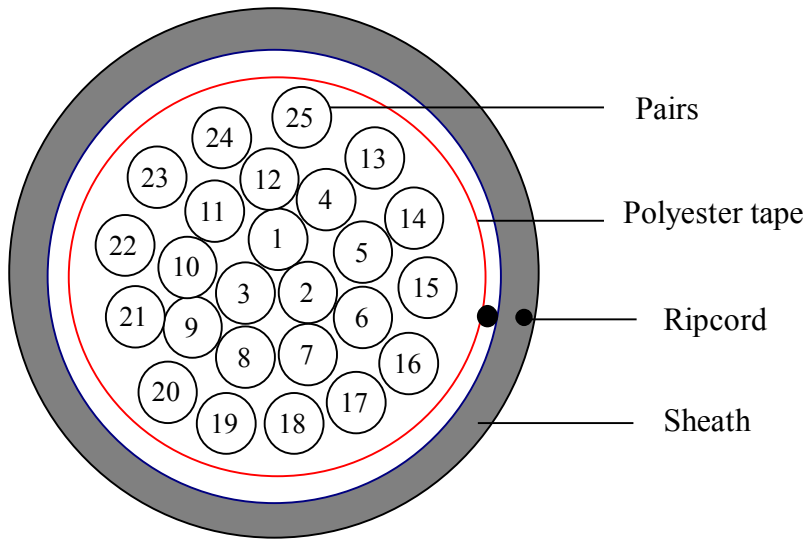
Number	Ribbon Chromatogram
1	White Blue
2	White Orange
3	White Green
4	White Brown

**(三) 6 Pairs Cable Structure**

**2、Ribbon Chromatogram**

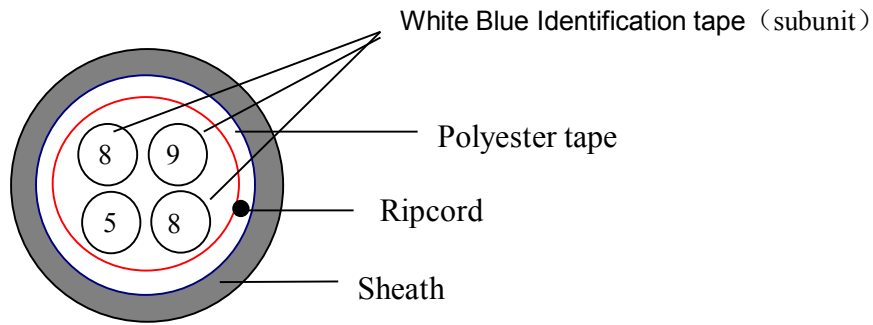
Number	Ribbon Chromatogram	Number	Ribbon Chromatogram
1	White Blue	6	Red Blue
2	White Orange		
3	White Green		
4	White Brown		
5	White Grey		

**(四) 10 Pairs Cable Structure**

**(五)、20 Pairs Cable Structure**

**2、Ribbon Chromatogram**

Number	Insulation Chromatogram	Number	Insulation Chromatogram
1	White-blue	11	Black-blue
2	White-orange	12	Black-orange
3	White-green	13	Black-green
4	White-brown	14	Black-brown
5	White-grey	15	Black-grey
6	Red-blue	16	Yellow-blue
7	Red-orange	17	Yellow-orange
8	Red-green	18	Yellow-green
9	Red-brown	19	Yellow-brown
10	Red-grey	20	Yellow-grey

**(六)、25 Pairs Cable**
**1、Structure**

**2、Ribbon Chromatogram**

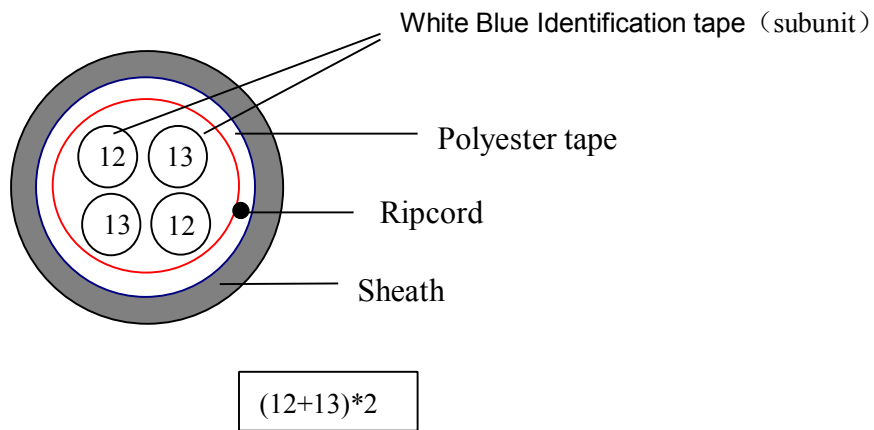
Number	Insulation Chromatogram	Number	Insulation Chromatogram
1	White-blue	14	Black-brown
2	White-orange	15	Black-grey
3	White-green	16	Yellow-blue
4	White-brown	17	Yellow-orange
5	White-grey	18	Yellow-green
6	Red-blue	19	Yellow-brown
7	Red-orange	20	Yellow-grey
8	Red-green	21	Purple-blue
9	Red-brown	22	Purple-orange
10	Red-grey	23	Purple-green
11	Black-blue	24	Purple-brown
12	Black-orange	25	Purple-grey
13	Black-green		

**(七)、30 Pairs Cable Structure**
**1、Structure**


$$(8+9+8)+5$$

**2、Ribbon Chromatogram**

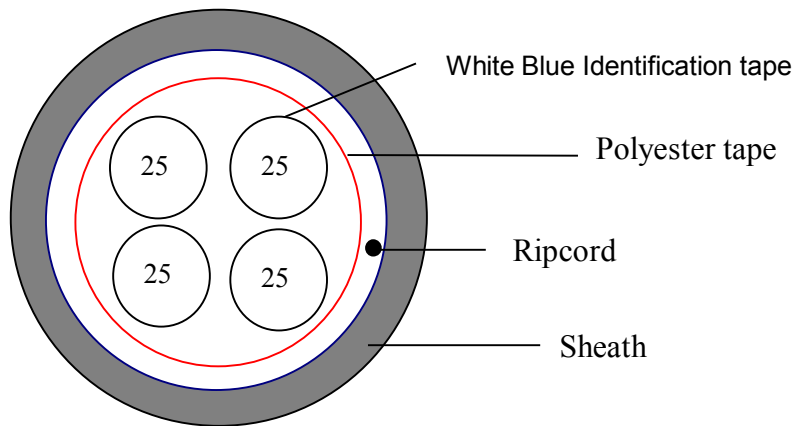
Subunit Number	Pairs Number	Ribbon Chromatogram
1	8	White Blue
2	9	White Blue
3	8	White Blue
4	5	White Orange

**(八) 、 50 Pairs Cable Structure**
**1、 Structure**

**3、 Ribbon Chromatogram**

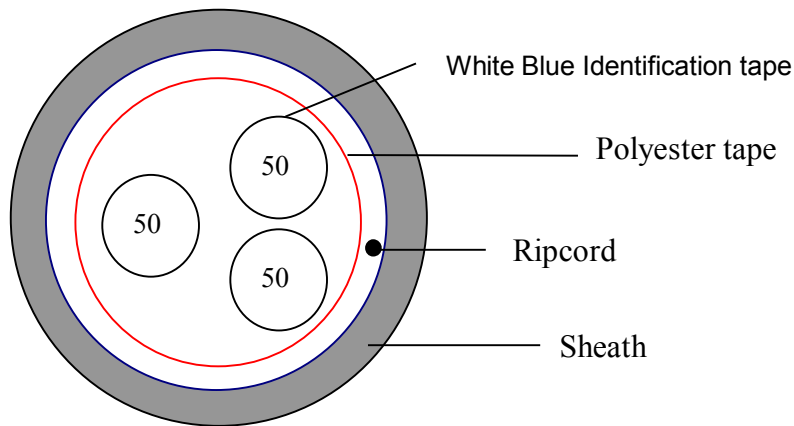
Subunit Number	Pairs Number	Ribbon Chromatogram
1	12	White Blue
2	13	White Blue
3	12	White Orange
4	13	White Orange



## (九)、100 Pairs Cable Structure

**1、Structure** $4 \times 25$ **2、 Unit Number and Ribbon Chromatogram**

Unit Number	Ribbon Chromatogram
1	White Blue
2	White Orange
3	White Green
4	White Brown

**(十)、150 Pairs Cable Structure****1、Structure** $3 \times 50$ **2、 Unit Number and Ribbon Chromatogram**

Unit Number	Ribbon Chromatogram
1	White Blue
2	White Orange
3	White Green