

No. SP25-31-0957

Date Jan. 21, 2025

SPECIFICATION

FOR

600V ETHYLENE PROPYLENE RUBBER INSULATED

POLYCHLOROPRENE SHEATHED FLEXIBLE CABLE

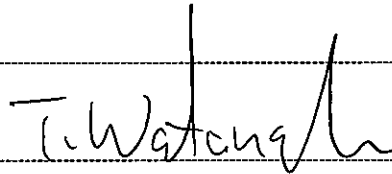
Code : 600V RE-2PNCT 30×2.5mm²(NMB)

Quantity

Your Ref. No.

Our Ref. No.

Signed by



Takanobu Watanabe

Manager

Engineering Dept. I
Electric Wire & Cable Division

Proterial, Ltd.

Issue and revision record

[illegible]

1. Scope

This specification covers 600V Ethylene Propylene Rubber Insulated Polychloroprene Sheathed Flexible Cable, which is reference to Japanese Electrical Facility Regulation and Manufacturer's Standard.

2. Construction and materials

2.1 Conductor

Conductor shall be stranded flexible conductor consisting of tinned annealed copper wires and tinned steel wires.

Suitable separator tape shall be applied over the conductor.

2.2 Insulation

Insulation shall consist of ethylene propylene rubber compound.

Nominal thickness shall be shown in the attached table.

Ave. thick. : not less than 90% of the nominal thickness

Min. thick. : not less than 80% of the nominal thickness

2.3 Proofed tape

Rubber filled textile tape may be applied over the insulation at manufacture's discretion , if necessary.

2.4 Core identification

The core identification shall be made by the number printed on the proofed tape.(Fig.2)

2.5 Cabling of cores

The insulated conductors shall be cabled. Suitable fillers and binder may be applied at manufacturer's discretion, if necessary.

2.6 Sheath

Sheath shall consist of black polychloroprene rubber compound.

Nominal thickness shall be shown in the attached table.

Ave. thick. : not less than 90% of the attached table

Min. thick. : not less than 85% of the attached table

A straight line shall be marked on the surface of the sheath.

2.7 Dimension

The dimension of the cable shall be in accordance with the attached table.

3. Marking

Manufacturer's name and year of manufacture shall be marked by suitable methods.

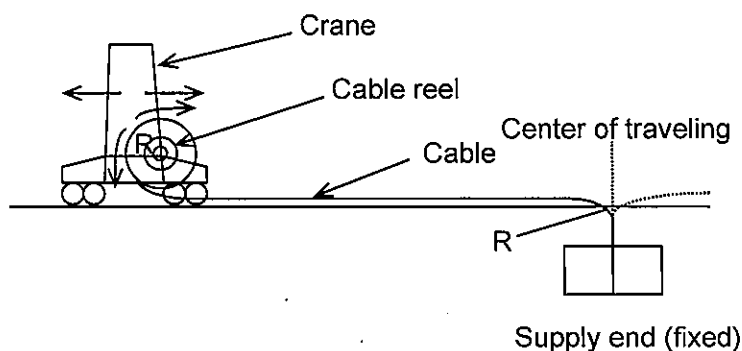
4. Inspection

Inspection shall be made on the following items prior to shipment.

Properties	Standard to comply with	Requirements	Test interval
Construction and dimensions	JIS C 3005 4.3	To comply with clause 2 and the attached Table 1	Every shipment
Withstand voltage test	JIS C 3005 4.6	To withstand AC 3000V for 1 min.	First shipment
Conductor resistance	JIS C 3005 4.4	Not more than the value in the attached Table 2	
Insulation resistance	JIS C 3005 4.7	Not less than the value in the attached Table 2	

5. Guide to use

This cable is designed for crane installation of reel system (traveling) as shown below.



R : Permissible minimum bending radius

Table 1 : Dimensions

(Code : 600V RE-2PNCT 30X2.5mm²(NMB))

Item		Unit	Specified value
Conductor	No. of conductor	-	30
	Size	mm ²	2.5
	Construction	No./mm	3/0.32TST+50/0.25TA
	Approx. diameter	mm	2.2
Nominal thickness of insulation		mm	0.8
Nominal thickness of sheath		mm	3.1
Approx. diameter of completed cable		mm	33
Maximum diameter of completed cable		mm	34.7
Approx. weight of completed cable		kg/km	1650

TST : Tinned steel wire

TA : Tinned annealed copper wire

Table 2 : Characteristic

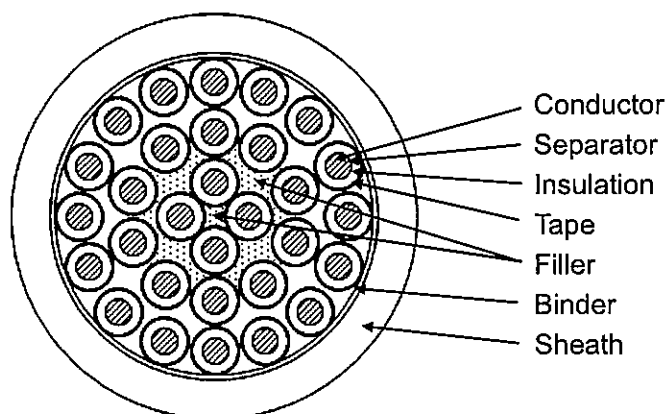
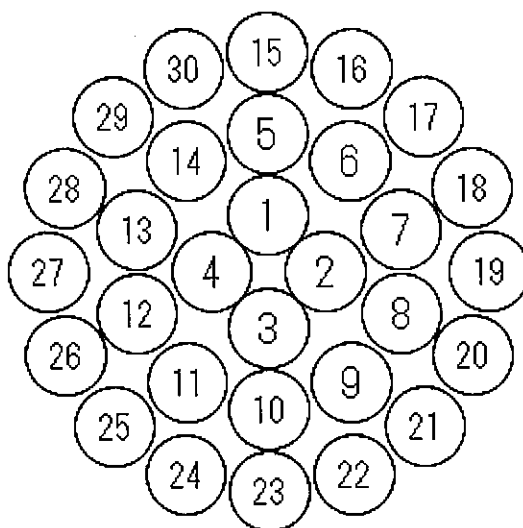
Item	Unit	Specified value
Max. conductor resistance(20°C)	Ω/km	8.21
Withstand voltage	V/min.	3000/1
Min. insulation resistance(20°C)	MΩ-km	500
Permissible minimum bending radius	mm	330
Permissible maximum pulling tension *	kN	4.8
Permissible maximum compression force **	kN/m	2.9

* In any case, pulling tension and compression force must not exceed these value.

For safety, regular pulling tension should be 1/3 of the permissible maximum value.

It is necessary to determine the pulling tension considering the compression force.

** Compression force = Pulling tension / Bending radius

Fig.1 Cable cross sectionFig.2 Core identification