

No. SP18-31-0569REV.1

Date April 2, 2025

# SPECIFICATION

## FOR

### 600V FLEXIBLE REELING CABLE

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Code : 600V SPD(RE)-FHNCT 44×2.5mm<sup>2</sup>

600V SPD(RE)-FHNCT 56×2.5mm<sup>2</sup>

*Quantity*

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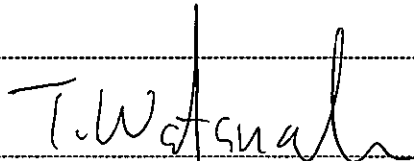
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*Our Ref. No.*

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*Signed by*



Takanobu Watanabe

Manager

*Engineering Dept. I*  
*Electric Wire & Cable Business Unit*

# Proterial, Ltd.

## Issue and revision record

| Rev.<br>No | Issue<br>date | Item   | Prepared<br>by               | Reviewed<br>by         | Approved<br>by                   |
|------------|---------------|--|------------------------------|------------------------|----------------------------------|
| -          | Mar. 5, 2018  | First issue  | K.Yamane                     | K.Fukuzato             | K.Fukuzato                       |
| 1          | May 28, 2019  | ・Nominal thickness added.<br>・Permissible maximum pulling tension added. | <i>K. Yamane</i><br>K.Yamane | <i>N. Ono</i><br>N.Ono | <i>K. Fukuzato</i><br>K.Fukuzato |
|            |               |  |                              |                        |                                  |

## 1. Scope

This specification covers 600V ETFE Insulated Flexible Reeling Cable which is reference to Manufacturer's Standard.

## 2. Construction

### 2.1 Conductor

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

### 2.2 Insulation

Insulation shall consist of ETFE(Copolymer of Ethylene and Tetrafluoro Ethylene) compound. Nominal thickness shall be shown in the table 1.

### 2.3 Core identification

The core identification shall be made by the number indicated on insulation as shown in the figure 2.

### 2.4 Cabling of cores

The insulated conductors shall be cabled.

Suitable rubber fillers and binder tape may be applied at manufacturer's discretion,if necessary.

### 2.5 Sheath

Sheath shall consist of our original compound.

Nominal thickness shall be shown in the table 1.

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

### 2.6 Reinforcement

Reinforcement consisting of suitable fiber braid shall be applied the midle of sheath.

### 2.7 Marking

Manufacture's name and year of manufacture shall be marked by suitable method.

## 3. Inspection

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

- (1) Construction and dimension
- (2) Withstand voltage test
- (3) Insulation resistance
- (4) Conductor resistance

Table 1 : Dimensions and Electrical properties

{ Code : 600V SPD(RE)-FHNCT 44X2.5mm<sup>2</sup>,56X2.5mm<sup>2</sup> }

| Item                                  |              | Unit            | Specified Value |         |
|---------------------------------------|--------------|-----------------|-----------------|---------|
| No. of conductor                      |              | —               | 44              | 56      |
| Conductor                             | Size         | mm <sup>2</sup> | 2.5             | 2.5     |
|                                       | Construction | No./mm          | 49/0.25         | 49/0.25 |
|                                       | Diameter     | mm              | 2.1             | 2.1     |
| Nominal thickness of insulation       |              | mm              | 0.4             | 0.4     |
| Approx. diameter of tension member    |              | mm              | 3.5             | 3.5     |
| Approx. thickness of reinforcement    |              | mm              | 0.5             | 0.5     |
| Nominal thickness of sheath           |              | mm              | 5.2             | 6.8     |
| Approx. diameter of completed cable   |              | mm              | 36              | 42      |
| Maximum diameter of completed cable   |              | mm              | 37.8            | 44.1    |
| Approx. weight of completed cable     |              | kg/km           | 1980            | 2690    |
| Maximum conductor resistance at 20°C  |              | Ω/km            | 8.21            | 8.21    |
| Minimum insulation resistance at 20°C |              | MΩ-km           | 1000            | 1000    |
| Withstand voltage                     |              | V/min.          | 3000/1          | 3000/1  |
| Permissible maximum pulling tension   |              | kN              | 7.0             | 7.0     |

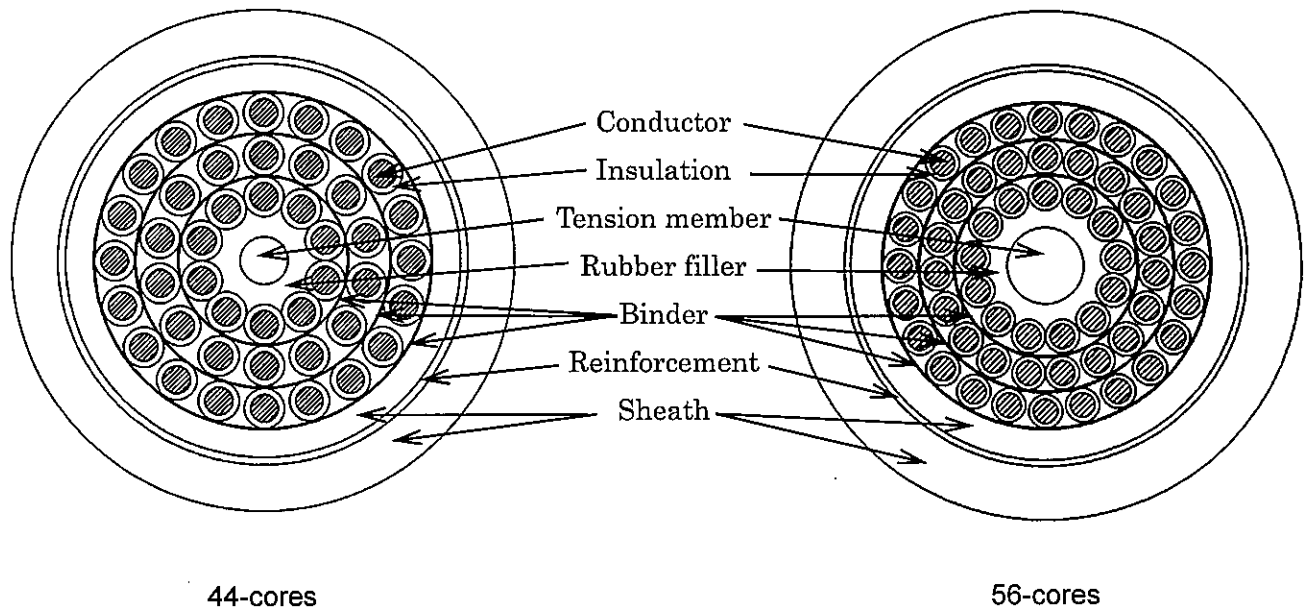


Fig.1 : Cable Cross Section

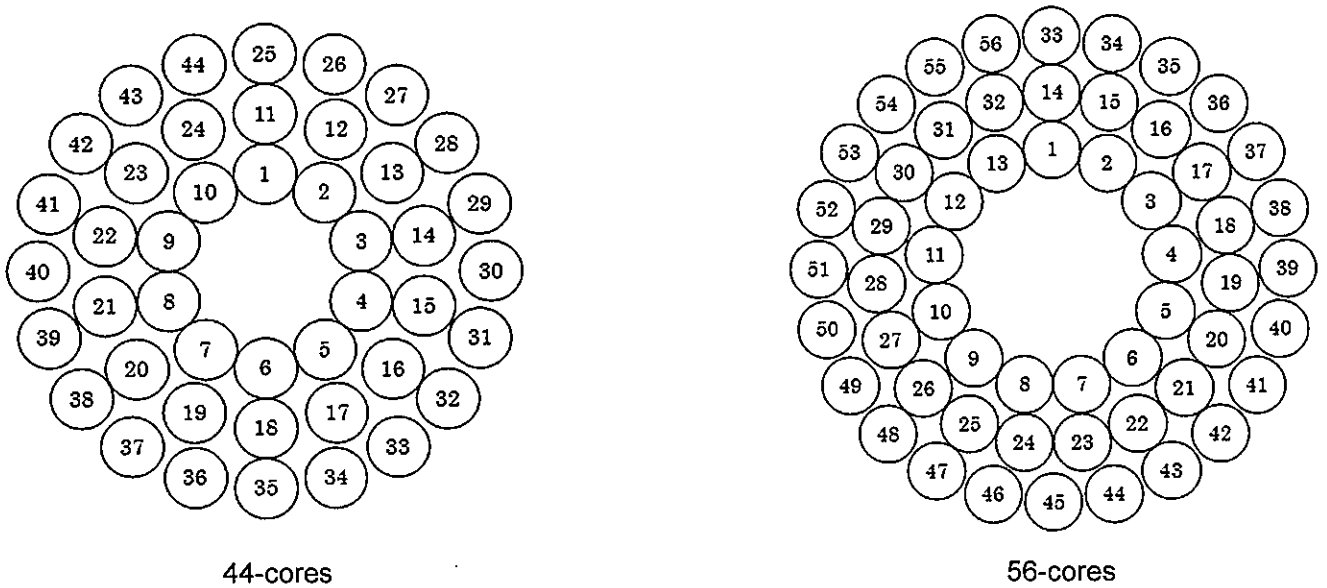


Fig.2 Core identification