

### Basic Properties

- (1) Materials : Irradiated cross-linked flexible polyolefin
- (2) Shrink temperature : min. 90°C
- (3) Shrink Ratio : Radial change: approx. 40%  
Longitudinal change: min. -15%
- (4) Continuous Operating Temperature : -55 to 105°C

### Features

- (1) Shrinkage at low temperature (at 90°C)
- (2) Flexible
- (3) Transparent colours

### Specification/Approvals

SFP standard (R4-0580)

### Application

- (1) Insulation, protection and reinforcement for termination and joints of electric wire
- (2) Colour identification and bundling for electric wires
- (3) Fixing and protection for cable labels
- (4) Insulation and protection for resistor and condenser

### Colours

Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Grey, White, Clear

### Properties

| Properties | Items              | Requirements                                     | Typical values*1                            |
|------------|--------------------|--|---|
| Mechanical | Tensile strength   | min. 10.4MPa                                     | 20.9MPa                                     |
|            | Elongation         | min. 200%  | 522%  |
|            | Gravity            | —  | 0.94  |
|            | Hardness (shore-D) | —  | 41  |
| Electrical | Voltage resistance | AC2.5kV x 60 sec. no breakdown                   | pass  |
|            | Volume resistivity | min. $1.0 \times 10^{14} \Omega \cdot \text{cm}$ | $1.2 \times 10^{16} \Omega \cdot \text{cm}$ |
| Chemical   | Water absorption   | 23°C x 24 hours, max. 0.30%                      | 0.08%                                       |
|            | Flammability       | Flammable  | —   |

\*1: For reference use only

### Sizes

| Nominal size (mm) | Supplied ID(mm) |                       | Recovered ID (mm)      |                | Unit length (min.) (m) |       |
|-------------------|-----------------|-----------------------|------------------------|----------------|------------------------|-------|
|                   | Inside diameter | Wall thickness (nom.) | Inside diameter (max.) | Wall thickness | Cut                    | Spool |
| 1 x 0.2           | 1.60 ± 0.30     | 0.20                  | 0.60                   | 0.40 ± 0.10    | 1                      | 100   |
| 1.5 x 0.2         | 2.10 ± 0.30     | 0.20                  | 0.80                   | 0.40 ± 0.10    | 1                      | 200   |
| 2 x 0.2           | 2.60 ± 0.30     | 0.20                  | 1.30                   | 0.40 ± 0.10    | 1                      | 200   |
| 2.5 x 0.2         | 3.10 ± 0.30     | 0.20                  | 1.50                   | 0.40 ± 0.10    | 1                      | 200   |
| 3 x 0.2           | 3.60 ± 0.30     | 0.20                  | 1.80                   | 0.40 ± 0.10    | 1                      | 200   |
| 3.5 x 0.2         | 4.10 ± 0.30     | 0.20                  | 2.00                   | 0.40 ± 0.10    | 1                      | 100   |
| 4 x 0.2           | 4.60 ± 0.30     | 0.20                  | 2.30                   | 0.40 ± 0.10    | 1                      | 100   |
| 5 x 0.2           | 5.60 ± 0.30     | 0.20                  | 2.90                   | 0.40 ± 0.10    | 1                      | 100   |
| 6 x 0.25          | 6.5 ± 0.3       | 0.25                  | 3.50                   | 0.50 ± 0.10    | 1                      | 100   |
| 7 x 0.25          | 7.5 ± 0.3       | 0.25                  | 4.20                   | 0.50 ± 0.10    | 1                      | 50    |
| 8 x 0.25          | 8.5 ± 0.3       | 0.25                  | 4.70                   | 0.50 ± 0.10    | 1                      | 50    |
| 9 x 0.25          | 9.5 ± 0.3       | 0.25                  | 5.40                   | 0.50 ± 0.10    | 1                      | 50    |
| 10 x 0.25         | 10.5 ± 0.4      | 0.25                  | 6.0                    | 0.50 ± 0.10    | 1                      | 50    |
| 11 x 0.25         | 11.5 ± 0.4      | 0.25                  | 7.0                    | 0.50 ± 0.10    | 1                      | 50    |
| 12 x 0.3          | 12.4 ± 0.4      | 0.30                  | 7.6                    | 0.60 ± 0.10    | 1                      | 50    |
| 13 x 0.3          | 13.4 ± 0.4      | 0.30                  | 8.0                    | 0.60 ± 0.10    | 1                      | 50    |
| 14 x 0.3          | 14.4 ± 0.4      | 0.30                  | 9.0                    | 0.60 ± 0.10    | 1                      | 50    |
| 15 x 0.3          | 15.4 ± 0.4      | 0.30                  | 10.0                   | 0.60 ± 0.10    | 1                      | 50    |
| 16 x 0.3          | 16.4 ± 0.4      | 0.30                  | 10.5                   | 0.60 ± 0.10    | 1                      | 50    |
| 18 x 0.3          | 18.4 ± 0.4      | 0.30                  | 11.5                   | 0.60 ± 0.10    | 1                      | 50    |
| 20 x 0.3          | 20.4 ± 0.4      | 0.30                  | 13.0                   | 0.60 ± 0.10    | 1                      | 50    |
| 22 x 0.3          | 22.4 ± 0.4      | 0.30                  | 14.0                   | 0.60 ± 0.10    | 1                      | 50    |
| 25 x 0.3          | 25.5 ± 0.5      | 0.30                  | 15.0                   | 0.60 ± 0.10    | 1                      | 50    |

### Shrink Property

