

## Coaxial Cable SUCOFORM\_250-01\_FEP

### Description

SUCOFORM, the handformable microwave cable with protective jacket



### Technical Data

#### Construction

|                  | Material                             | Detail                 | Diameter       |
|------------------|--------------------------------------|------------------------|----------------|
| Centre conductor | Copper, Silver plated                | Wire                   | 1.67 mm        |
| Dielectric       | PTFE (Polytetrafluoroethylene)       |                        | 5.24 mm        |
| Outer conductor  | Copper, Tin plated                   | Tin soaked braid, 100% | 6.3 mm         |
| Jacket           | FEP (Fluorinated ethylene propylene) | RAL 3020 - rd          | 6.8 mm +/- 0.1 |

Print: HUBER+SUHNER SUCOFORM 250-01 FEP 50 Ohm (PA no.)

#### Electrical Data

|                                |  |
|--------------------------------|--|
| Impedance                      | 50 Ω +/- 2                             |
| Operating Frequency            | 18 GHz                                 |
| Capacitance                    | 95 pF/m                                |
| Velocity of signal propagation | 71 %                                   |
| Signal delay                   | 4.7 ns/m                               |
| Insulation resistance          | ≥ 1 x 10 <sup>8</sup> MΩm              |
| Min. screening effectiveness   | ≥ 100 dB (up to 18 GHz)                |
| Max. operating voltage         | ≤ 3.5 kV <sub>rms</sub> (at sea level) |
| Test voltage                   | 7.5 kV <sub>rms</sub> (50 Hz/1 min)    |

#### Mechanical Data

|                     |  |
|---------------------|--|
| Weight              | 13.8 kg/100 m                          |
| Min. bending radius | static<br>30 mm                        |
|                     | repeated (for ≤ 50 bendings)<br>120 mm |

#### Environmental Data

|                   |                                     |
|-------------------|-------------------------------------|
| Temperature range | -65 °C... +165 °C                   |
| Flammability      | IEC 60332-1, UL 1581 § 1080 (VW-1), |
| 2011/95/EC (RoHS) | compliant                           |

### Additional Information

#### Ordering Information

Order as SUCOFORM\_250-01\_FEP

#### Remarks

(For details refer to the HUBER+SUHNER MICROWAVE CABLES AND ASSEMBLIES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

#### Suitable Connectors

Cable group Y14 5 mm / 50 Ohm

## Coaxial Cable SUCOFORM\_250-01\_FEP

**Matrix** typical Attenuation [ formula:  $(a \cdot f^{0.5} + b \cdot f)$  ] and maximum Power CW [ formula:  $(p/f^{0.5})$  ]

Coefficients:

a = 0.21

b = 0.031

f<sub>max</sub> = 18

P at 1GHz = 1000

| Frequency<br>(GHz) | Nom. attenuation<br>(dB / m)<br>sea level 25° C<br>ambient<br>temperature | Nom. attenuation<br>(dB / ft)<br>sea level 25° C<br>ambient<br>temperature | Max. CW power<br>(watt)<br>sea level 40° C<br>ambient<br>temperature |
|--------------------|---|--|--|
| 0,9                | 0,23  | 0,069  | 1054   |
| 1,8                | 0,34  | 0,103  | 745  |
| 2,7                | 0,43  | 0,131  | 609  |
| 3,6                | 0,51  | 0,155  | 527  |
| 4,5                | 0,58  | 0,178  | 471  |
| 5,4                | 0,66  | 0,200  | 430  |
| 6,3                | 0,72  | 0,220  | 398  |
| 7,2                | 0,79  | 0,240  | 373  |
| 8,1                | 0,85  | 0,259  | 351  |
| 9,0                | 0,91  | 0,277  | 333  |
| 9,9                | 0,97  | 0,295  | 318  |
| 10,8               | 1,02  | 0,312  | 304  |
| 11,7               | 1,08  | 0,329  | 292  |
| 12,6               | 1,14  | 0,346  | 282  |
| 13,5               | 1,19  | 0,363  | 272  |
| 14,4               | 1,24  | 0,379  | 264  |
| 15,3               | 1,3   | 0,395  | 256  |
| 16,2               | 1,35  | 0,411  | 248  |
| 17,1               | 1,4   | 0,426  | 242  |
| 18,0               | 1,45  | 0,442  | 236  |