

# HUBER+SUHNER® DATA SHEET

## Coaxial Cable: SUCOFORM\_250-01\_FEP

Rev.: E



### 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   |                         | 5.24 mm        |
| Outer conductor  | Copper, Tin plated                               | Tin soaked braid, 100 % | 6.3 mm         |
| Jacket           | FEP  | RAL 3020 - rd           | 6.8 mm +/- 0.1 |
| Print            | HUBER+SUHNER SUCOFORM 250-01 FEP 50 Ohm (PA no.) |                         |                |

#### Electrical Data

|                                |                      |                                  |
|--------------------------------|----------------------|----------------------------------|
| Impedance                      | 50                   | $\Omega$ +/- 2                   |
| Max. operating frequency       | 18                   | GHz                              |
| Capacitance                    | 95                   | pF/m                             |
| Velocity of signal propagation | 71                   | %                                |
| Signal delay                   | 4.7                  | ns/m                             |
| Insulation resistance          | $\geq 1 \times 10^8$ | M $\Omega$ m                     |
| 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                          | 30 mm    |
|                     | repeated (for max. 50 bendings) | 120 mm   |

#### Environmental Data

|                                   |   |
|-----------------------------------|---|
| Temperature range                 | -65 °C... + 165 °C                              |
| Flammability<br>2002/95/EC (RoHS) | IEC 60332-1, UL 1581 § 1080 (VW-1)<br>compliant |

#### Ordering Information

Order as SUCOFORM\_250-01\_FEP

#### Additional Information

##### 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 | crimped (Y7) |
|             | clamped —    |
|             | soldered —   |

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

Coefficients:

|    |                  |    |   |                     |   |                           |   |
|----|------------------|----|---|---------------------|---|---------------------------|---|
| a= | 0.21             | b= | 0.031                                     | f <sub>max.</sub> = | 18  | p <sub>at</sub><br>1GHz = | 1000                                      |
|    |                  |    |   |                     |   |                           |   |
|    | <b>Frequency</b> |    | <b>Nom. attenuation</b>                   |                     | <b>Nom. attenuation</b>                   |                           | <b>Max. CW power</b>                      |
|    | <b>(GHz)</b>     |    | <b>(dB / m)</b>                           |                     | <b>(dB / ft)</b>                          |                           | <b>(watt)</b>                             |
|    |                  |    | sea level<br>25° C ambient<br>temperature |                     | sea level<br>25° C ambient<br>temperature |                           | sea level<br>40° C ambient<br>temperature |
|    |                  |    |   |                     |   |                           |   |
|    | 0.9              |    | 0.23                                      |                     | 0.070                                     |                           | 1054                                      |
|    | 1.8              |    | 0.34                                      |                     | 0.104                                     |                           | 745                                       |
|    | 2.7              |    | 0.43                                      |                     | 0.131                                     |                           | 609                                       |
|    | 3.6              |    | 0.51                                      |                     | 0.155                                     |                           | 527                                       |
|    | 4.5              |    | 0.58                                      |                     | 0.177                                     |                           | 471                                       |
|    | 5.4              |    | 0.66                                      |                     | 0.201                                     |                           | 430                                       |
|    | 6.3              |    | 0.72                                      |                     | 0.219                                     |                           | 398                                       |
|    | 7.2              |    | 0.79                                      |                     | 0.241                                     |                           | 373                                       |
|    | 8.1              |    | 0.85                                      |                     | 0.259                                     |                           | 351                                       |
|    | 9.0              |    | 0.91                                      |                     | 0.277                                     |                           | 333                                       |
|    | 9.9              |    | 0.97                                      |                     | 0.296                                     |                           | 318                                       |
|    | 10.8             |    | 1.02                                      |                     | 0.311                                     |                           | 304                                       |
|    | 11.7             |    | 1.08                                      |                     | 0.329                                     |                           | 292                                       |
|    | 12.6             |    | 1.14                                      |                     | 0.347                                     |                           | 282                                       |
|    | 13.5             |    | 1.19                                      |                     | 0.363                                     |                           | 272                                       |
|    | 14.4             |    | 1.24                                      |                     | 0.378                                     |                           | 264                                       |
|    | 15.3             |    | 1.30                                      |                     | 0.396                                     |                           | 256                                       |
|    | 16.2             |    | 1.35                                      |                     | 0.411                                     |                           | 248                                       |
|    | 17.1             |    | 1.40                                      |                     | 0.427                                     |                           | 242                                       |
|    | 18.0             |    | 1.45                                      |                     | 0.442                                     |                           | 236                                       |

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

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