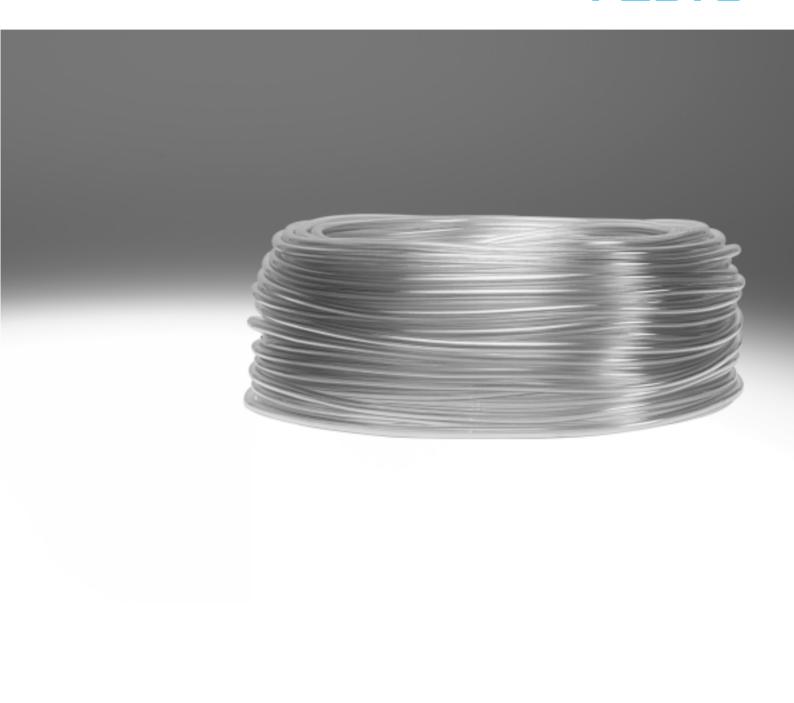
### Plastic tubing, standard I.D.

# **FESTO**



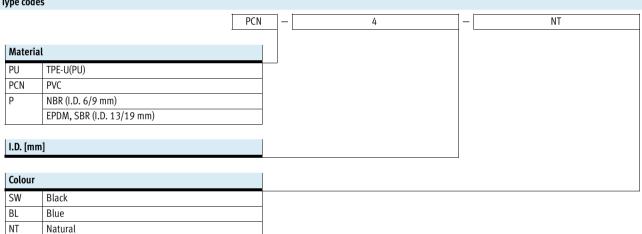
## **Plastic tubing, standard I.D.** Product range overview and type codes



| Product range | overview                |        |        |       |                  |                |        |                               |            |                              |          |
|---------------|-------------------------|--------|--------|-------|------------------|----------------|--------|-------------------------------|------------|------------------------------|----------|
| Version       | Туре                    | [mm]   | Colour |       | Operating medium |                |        | Resistance                    |            | → Page/                      |          |
|               |                         |        | Blue   | Black | Natural          | Compressed air | Vacuum | Water (not drinking<br>water) | Hydrolysis | Shore hardness <sup>2)</sup> | Internet |
|               | PU                      | 9      |        | •     | -                |                | -      | _                             | +          | A 93 ±3                      | 3        |
|               | TPE-U(PU) <sup>1)</sup> | 13.1   | _      |       |                  |                |        |                               |            |                              |          |
|               | PCN                     | 4      | _      | _     |                  |                |        |                               |            | A 76 ±3                      | 4        |
|               | PVC                     |        |        |       | _                |                | _      | _                             |            |                              |          |
|               | P                       | 6, 9   |        | _     |                  |                |        |                               |            | A 68 ±5                      | 5        |
|               | NBR                     |        | _      |       | _                |                |        | •                             |            |                              |          |
|               | P                       | 13, 19 | _      |       |                  | _              |        |                               |            | A 71 ±5                      | 5        |
|               | EPDM, SBR               |        |        | _     |                  |                |        |                               |            |                              |          |

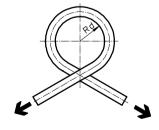
- 1) Fibre-reinforced
- Values are determined using test boards. Values determined using tubing may vary.
- Limited suitability (on request)
- Not suitable

#### Type codes



#### Method of measurement

Flow-relevant bending radius Rd



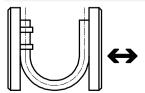
The tube is bent in the direction of its own curve until the tubing outer diameter is flattened by 5%. Rd is then calculated mathematically. The flow rate is not reduced until Rd is reached.



Cross section flattened by bending the tube.

d = non-deformed tubing 0.D. d1 = deformed tubing O.D.

#### Minimum bending radius Rmin



The tube fixed to the base plate is bent until the deformation results in a kink. The measured value is the minimum bending radius Rmin. This Rmin results in significant reductions in flow rate.

Plastic tubing PU Technical data **FESTO** 

#### Plastic tubing PU

Highly flexible fibre-reinforced plastic tubing distinguished by its great resistance to abrasion and to kinks.



| Operating and environmental conditions | 1   |           |  |  |  |
|--|---|-----------|--|--|--|
| Туре                                   | PU-9                                      | PU-13     |  |  |  |
| Operating pressure for entire [bar]    | 0 +10                                     | −0.95 +10 |  |  |  |
| temperature range                      |   |           |  |  |  |
| Operating medium                       | Compressed air to ISO 8573-1:2010 [7:-:-] |           |  |  |  |
| Note on operating/pilot medium         | Lubricated operation possible             |           |  |  |  |
| Ambient temperature [°C]               | -35 +60                                   |           |  |  |  |

#### Possible fittings



Quick connector CK

→ Internet: ck

| Materials         |                         |  |  |  |  |
|-------------------|-------------------------|--|--|--|--|
| Shore hardness    | A 93 ±3                 |  |  |  |  |
| Tube              | TPE-U(PU)               |  |  |  |  |
| Note on materials | RoHS-compliant          |  |  |  |  |
|                   | Free of copper and PTFE |  |  |  |  |

| Dimensions and orderin | g data |                              |        |        |          |          |                  |
|------------------------|--------|------------------------------|--------|--------|----------|----------|------------------|
| O.D.                   | I.D.   | Flow-relevant bending radius | Weight | Colour | Part No. | Туре     | PU <sup>1)</sup> |
| [mm]                   | [mm]   | [mm]                         | [kg/m] |        |          |          | [m]              |
| 11.6                   | 9      | 76                           | 0.056  | Black  | 12134    | PU-9-SW  | 50               |
| 18                     | 13.1   | 83                           | 0.133  | Black  | 12133    | PU-13-SW | 50               |

<sup>1)</sup> Packaging unit

Plastic tubing PCN Technical data

#### Plastic tubing PCN

For draining condensate in service units series D and MS



**FESTO** 

| Operating and environmental conditions |       |            |  |  |  |  |
|--|-------|------------|--|--|--|--|
| Operating pressure for entire          | [bar] | -0.5 +0.25 |  |  |  |  |
| temperature range                      |       |            |  |  |  |  |
| Ambient temperature                    | [°C]  | -10 +60    |  |  |  |  |

| Materials         |                |
|-------------------|----------------|
| Shore hardness    | A 76 ±3        |
| Tube              | PVC            |
| Note on materials | RoHS-compliant |

| Dimensions and ordering data |      |        |         |          |          |                  |  |  |  |  |
|------------------------------|------|--------|---------|----------|----------|------------------|--|--|--|--|
| 0.D.                         | I.D. | Weight | Colour  | Part No. | Туре     | PU <sup>1)</sup> |  |  |  |  |
| [mm]                         | [mm] | [kg/m] |         |          |          | [m]              |  |  |  |  |
| 6.5                          | 4    | 0.025  | Natural | 7134     | PCN-4-NT | 50               |  |  |  |  |

<sup>1)</sup> Packaging unit

Rubber tubing P
Technical data

**FESTO** 

#### Rubber tubing P, with fibre reinforcement

Highly flexible tubing with fibre reinforcement for barbed hose fitting N-...-P and hose clip SK



| Operating and environmental conditions |       |   |  |  |  |
|--|-------|---|--|--|--|
| Operating pressure for entire          | [bar] | -0.95 +16                                 |  |  |  |
| temperature range                      |       |   |  |  |  |
| Operating medium                       |       | Compressed air to ISO 8573-1:2010 [7:-:-] |  |  |  |
| Ambient temperature                    | [°C]  | -20 +80                                   |  |  |  |

| Materials         |                    |      |           |      |  |
|-------------------|--------------------|------|-----------|------|--|
| Туре              | P-6                | P-9  | P-13      | P-19 |  |
| Shore hardness    | A 68 ±5            |      | A 71 ±5   |      |  |
| Tube              | NBR                |      | EPDM, SBR |      |  |
| Note on materials | RoHS-compliant     |      | <u>.</u>  |      |  |
|                   | Free of copper and | PTFE |           |      |  |

| Dimensions a | and ordering data |                     |                              |        |        |          |         |                  |
|--------------|-------------------|---------------------|------------------------------|--------|--------|----------|---------|------------------|
| O.D.         | I.D.              | Min. bending radius | Flow-relevant bending radius | Weight | Colour | Part No. | Туре    | PU <sup>1)</sup> |
| [mm]         | [mm]              | [mm]                | [mm]                         | [kg/m] |        |          |         | [m]              |
| 13           | 6                 | 20                  | 45                           | 0.144  | Blue   | 2231     | P-6-BL  | 40               |
| 16           | 9                 | 30                  | 60                           | 0.186  | Blue   | 2232     | P-9-BL  | 40               |
| 23           | 13                | 50                  | 100                          | 0.40   | Black  | 2234     | P-13-SW | 40               |
|              | 19                | 60                  | 200                          | 0.649  | Black  | 2235     | P-19-SW | 40               |

<sup>1)</sup> Packaging unit