



Polyurethane tubes (PU 98 ShA)

series **T**

DESCRIPTION

Polyurethane tubes type T-PU have been designed to satisfy the needs of “heavy duty” applications such oleo-dynamics, robotics, pneumatic, tools & industrial machinery thanks to their outstanding technical features. These tubes show very high flexibility to low temperatures, low sensibility to “click” and “stress cracking” effects, excellent resistance to abrasion, good resistance to atmospheric agents, good aging, extremely resistant to exertion.



TECHNICAL DATA

| | |
|---------------------|--------------|
| Working temperature | -20 ÷ +70°C |
| Hardness | 98 ShA/52ShD |
| Density | 1.22 g/cm³ |
| Elongation at break | 500 % |
| Tear resistance | 130 N/mm |
| Flexural modulus | 140 MPa |
| Abrasion loss | 25 mm³ |
| Break resistance | 55 MPa |

MATERIALS

| | |
|----------------------------------|--|
| Tube | Poliurethane 98 ShA |
| Standard colour | Sky-Blue (SB) |
| Alternative colours upon request | Red (R) - Green (G) - Yellow (Y) - Sky-Blue (SB) Cyan (CN) - Black (BK) - Grey (GY) - Natural (N) |

MEAN FEATURES TUBES T-PU

| Ø (mm) | | BURSTING PRESSURE (bar) 23°C | WORKING PRESSURE (bar) 23°C | BENDING RAY (mm) | REELS LENGHT (m) | TYPE |
|----------|----------|---------------------------------|--------------------------------|---------------------|---------------------|-------------|
| External | Internal | | | | | |
| 4 | 2 | 60 | 15 | 11 | 100 | T-PU-4X2 |
| 6 | 4 | 40 | 10 | 18 | 100 | T-PU-6X4 |
| 8 | 5 | 52 | 13 | 25 | 100 | T-PU-8X5 |
| 8 | 5,5 | 40 | 10 | 30 | 100 | T-PU-8X5,5 |
| 8 | 6 | 28 | 7 | 35 | 100 | T-PU-8X6 |
| 10 | 7 | 35 | 8,5 | 30 | 100 | T-PU-10X7 |
| 10 | 7,5 | 30 | 7,5 | 40 | 100 | T-PU-10X7,5 |
| 10 | 8 | 27 | 5,5 | 45 | 100 | T-PU-10X8 |
| 12 | 9 | 25 | 6 | 50 | 100 | T-PU-12X9 |

P.S.: Please specify the colour of the tube with the order

ALTERATION SCALE ACCORDING TO TEMPERATURE

| -20°C | 0°C | +23°C | +30°C | +40°C | +50°C | +60°C |
|-------|-----|-------|-------|-------|-------|-------|
| 1,87 | 1,4 | 1 | 0,84 | 0,70 | 0,60 | 0,52 |

P.S.: This information is only indicative. The validation of the application is at the user charge. For this kind of tubing the manufacturer suggests to use a working pressure of 1/4 than the bursting pressure. These tubing respect the tolerance indicated in the DIN 73 873 standard

ATTENTION

The use of this tubing typology with continuous pulsing pressure can create heat accumulation, although it is particularly resistant to labour and tension flexions. Polyurethane is generally resistant to ozone, oil, fats, fuels and chemical solutions. Poyurethane is not resistant, or low resistant, to concentrate acids, keton, hydrocarbon and chloride.



series T

Polyamide tubes (PA12)

DESCRIPTION

Polyamide tubes type T-PA12 are for technical applications due to their characteristics of flexibility and mechanical performances. These tubes show high mechanical properties to traction and to continuous & alternate flexion, notable flexibility, good stability to heat, remarkable resistance to aging, low water absorption, remarkable resistance to hydrocarbons and oils and good inertness to chemical agents. This kind of material is particularly indicated for the accomplishment of tubing for pneumatics, robotics, steel, industrial machinery, etc., when there is the necessity to remarkable flexibility.



TECHNICAL DATA

| | |
|----------------------|-------------|
| Working temperature | -40 ÷ +70°C |
| Hardness | 65 ShD |
| Density | 1.03 g/cm³ |
| Elongation at break | > 300 % |
| Resistenza a strappo | 130 N/mm |
| Flexural modulus | 410 MPa |

MATERIALS

| | |
|----------------------------------|---|
| Tube | Polyamide (PA12) |
| Standard colour | Sky Blue (SB) |
| Alternative colours upon request | Red (R) - Green (G) - Yellow (Y) - Blue (B) - Orange (O) - Sky-Blue (SB) - Black (BK) - Grey (GY) - Natural (N) - Brown (M) |

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MAIN FEATURES TUBES T-PA12

| Ø (mm) | | BURSTING PRESSURE (bar) 23°C | WORKING PRESSURE (bar) 23°C | BENDING RAY (mm) | REELS LENGTH (m) | TYPE |
|----------|----------|---------------------------------|--------------------------------|---------------------|---------------------|--------------|
| External | Internal | | | | | |
| 4 | 2 | 130 | 44 | 15 | 100 | T-PA12-4X2 |
| 4 | 2,5 | 108 | 36 | 20 | 100 | T-PA12-4X2,5 |
| 4 | 2,7 | 78 | 26 | 25 | 100 | T-PA12-4X2,7 |
| 6 | 4 | 81 | 27 | 30 | 100 | T-PA12-6X4 |
| 8 | 6 | 60 | 20 | 40 | 100 | T-PA12-8X6 |
| 10 | 8 | 45 | 15 | 60 | 100 | T-PA12-10X8 |
| 12 | 10 | 39 | 13 | 85 | 100 | T-PA12-12X10 |

P.S.: Please specify the colour of the tube with the order

ALTERATION SCALE ACCORDING TO TEMPERATURE

| -20°C | 0°C | +23°C | +30°C | +40°C | +50°C | +60°C |
|-------|-----|-------|-------|-------|-------|-------|
| 1,87 | 1,4 | 1 | 0,80 | 0,65 | 0,55 | 0,45 |

P.S.: This information is only indicative. The validation of the application is at the user charge. For this kind of tubing the manufacturer suggests to use a working pressure of 1/4 than the bursting pressure. These tubing respect the tolerance indicated in the DIN 73 873 standard



Polyethylene tubes (LDPE)

series T

DESCRIPTION

Polyethylene tubes type T-PELD are particularly indicated for all applications where there are not specific problems pressures and very high temperatures, as for example for water treatment, chemical industry, agriculture, irrigation applications and compressed air. They are even suitable for alimentary applications and food contact, complying with the D.M. 21/03/73 and following adjournments, the Directive 90/128/CEE, the FDA 21 CFR 177.1520, and even European Pharmacopoeia. These tubes are totally recyclable and show high impact resistance, low sensibility to “click” and “stress cracking” effect, excellent resistance to chemical agents, good electrical properties, optimal flexibility.



TECHNICAL DATA

| | |
|---------------------------|-------------|
| Working temperature | -20 ÷ +60°C |
| Density | 0.921 g/cm³ |
| Elongation at break | 400 % |
| Tear resistance | 30 N/mm |
| Impact resistance | 310 g |
| Flexural modulus | 100 MPa |
| Tensile strenght at break | 26 MPa |

MATERIALS

| | |
|----------------------------------|---|
| Tube | Polyethylene low density (LDPE) |
| Standard colour | Sky-Blue (SB) |
| Alternative colours upon request | Red (R) - Green (G) - Yellow (Y) - Blue (B) Sky-Blue (SB) - Black (BK) - Grey (GY) - Natural (N) |

MAIN FEATURES TUBES T-PELD

| Ø (mm) | | BURSTING PRESSURE (bar) 23°C | WORKING PRESSURE (bar) 23°C | BENDING RAY (mm) | REELS LENGTH (m) | TYPE |
|----------|----------|---------------------------------|--------------------------------|---------------------|---------------------|------------------|
| External | Internal | | | | | |
| 4 | 2 | 75 | 18,5 | 20 | 100 | T-PELD-4X2 |
| 4 | 2,5 | 60 | 15 | 25 | 100 | T-PELD-4X2,5 |
| 5 | 3 | 50 | 12,5 | 30 | 100 | T-PELD-5X3 |
| 6 | 4 | 40 | 10 | 40 | 100 | T-PELD-6X4 |
| 6,35 | 4,35 | 36 | 9 | 50 | 100 | T-PELD-6,35X4,35 |
| 8 | 6 | 30 | 7,5 | 50 | 100 | T-PELD-8X6 |
| 9,54 | 6,36 | 40 | 10 | 100 | 100 | T-PELD-9,54X6,36 |
| 10 | 8 | 25 | 6 | 120 | 100 | T-PELD-10X8 |
| 12 | 8 | 30 | 7,5 | 160 | 100 | T-PELD-12X8 |
| 12 | 9 | 28 | 7 | 120 | 100 | T-PELD-12X9 |
| 12 | 10 | 20 | 5 | 120 | 100 | T-PELD-12X10 |

P.S.: Please specify the colour of the tube with the order

ALTERATION SCALE ACCORDING TO TEMPERATURE

| -20°C | 0°C | +23°C | +30°C | +40°C | +50°C | +60°C |
|-------|-----|-------|-------|-------|-------|-------|
| 1,87 | 1,4 | 1 | 0,80 | 0,60 | 0,50 | 0,40 |

P.S.: This information is only indicative. The validation of the application is at the user charge. For this kind of tubing the manufacturer suggests to use a working pressure of 1/4 than the bursting pressure. These tubing respect the tolerance indicated in the DIN 73 873 standard

ATTENTION

It is recommended to avoid connecting the polyethylene tubing with fittings that may deform its extremity, because this material does not resist to enlargements approximately over 15%. “Creep” problems could occur with non-suitable fittings.