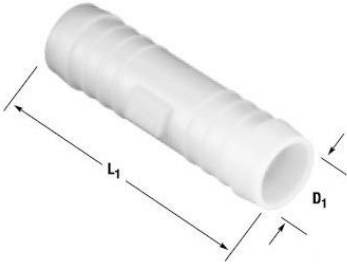


Lightweight tube connectors distinguished by high strength, toughness, resistance to abrasion and impact resistance.

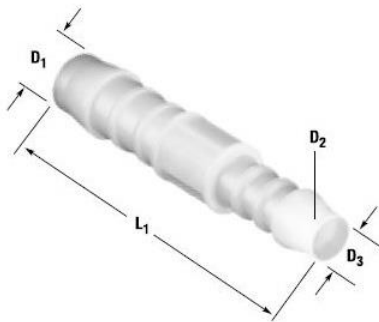
Temperature range -40 °C to 80 °C
Max. allowable pressure 10 bar



34.413

Hose connector, POM

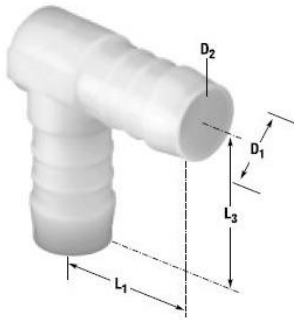
| Art. No. | Type No. | For hose D ₁ mm | I.D. D ₂ mm | L ₁ mm |
|----------|----------|----------------------------------|------------------------------|----------------------|
| 110988 | 34.410 | I.D. 3 | 2.5 | 25.0 |
| 110989 | 34.411 | I.D. 4 | 2.7 | 35.0 |
| 110990 | 34.411/5 | I.D. 5 | 3.0 | 45.0 |
| 110991 | 34.412 | I.D. 6 | 4.0 | 49.0 |
| 110992 | 34.413 | I.D. 8 | 5.6 | 56.0 |
| 110993 | 34.414 | I.D. 10 | 7.0 | 63.0 |
| 110994 | 34.415 | I.D. 12 | 8.6 | 66.5 |
| 110995 | 34.416 | I.D. 13 | 8.6 | 73.0 |
| 110996 | 34.417 | I.D. 16 | 12.0 | 75.0 |
| 110997 | 34.418 | I.D. 19 | 15.0 | 76.0 |
| 110998 | 34.419 | I.D. 25 | 21.0 | 95.0 |



34.424

Hose connector, unequal, POM

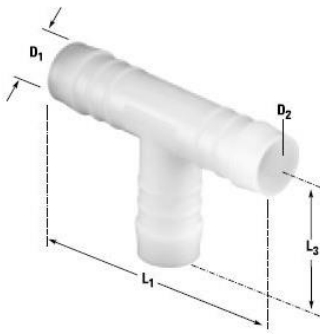
| Art. No. | Type No. | For hose D_1 mm | I.D. D_3 mm | D_2 mm | L_1 mm |
|----------|----------|-------------------------|---------------------|-------------|-------------|
| 110999 | 34.420 | I.D. 4 | 3.0 | 2.5 | 30.0 |
| 111000 | 34.421 | I.D. 6 | 4.0 | 2.7 | 42.5 |
| 111001 | 34.422 | I.D. 8 | 4.0 | 2.7 | 48.0 |
| 111002 | 34.423 | I.D. 8 | 6.0 | 4.0 | 54.0 |
| 111003 | 34.424 | I.D. 10 | 6.0 | 4.0 | 58.0 |
| 111004 | 34.425 | I.D. 10 | 8.0 | 5.6 | 60.5 |
| 111005 | 34.426 | I.D. 12 | 8.0 | 5.6 | 62.5 |
| 111006 | 34.427 | I.D. 12 | 10.0 | 7.0 | 64.0 |



34.813

Hose union elbow, POM

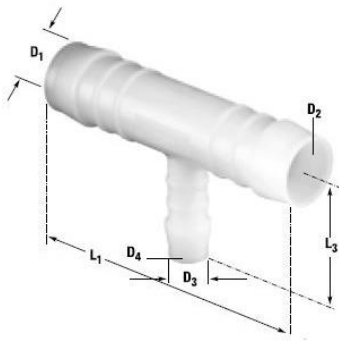
| Art. No. | Type No. | For hose D ₁ mm | I.D. D ₂ mm | L ₁ mm | L ₃ mm |
|----------|----------|----------------------------------|------------------------------|----------------------|----------------------|
| 111007 | 34.809 | I.D. 3 | 2.5 | 12.5 | 12.5 |
| 111008 | 34.811 | I.D. 4 | 2.5 | 17.5 | 19.5 |
| 111009 | 34.811/5 | I.D. 5 | 3.0 | 21.0 | 22.0 |
| 111010 | 34.812 | I.D. 6 | 4.0 | 25.0 | 26.0 |
| 111011 | 34.813 | I.D. 8 | 5.6 | 29.0 | 30.0 |
| 111012 | 34.814 | I.D. 10 | 7.0 | 31.0 | 33.5 |
| 111013 | 34.815 | I.D. 12 | 8.6 | 34.5 | 36.0 |
| 111014 | 34.816 | I.D. 13 | 8.6 | 36.5 | 38.5 |
| 111015 | 34.817 | I.D. 16 | 12.0 | 40.5 | 45.0 |
| 111016 | 34.818 | I.D. 19 | 15.0 | 43.5 | 46.0 |
| 111017 | 34.819 | I.D. 25 | 21.0 | 52.5 | 52.5 |



35.513

Tee hose connector, POM

| Art. No. | Type No. | For hose D ₁ mm | I.D. D ₂ mm | L ₁ mm | L ₃ mm |
|----------|----------|----------------------------------|------------------------------|----------------------|----------------------|
| 111018 | 35.510 | I.D. 3 | 2.5 | 25.0 | 12.5 |
| 111019 | 35.511 | I.D. 4 | 2.7 | 35.0 | 19.5 |
| 111020 | 35.511/5 | I.D. 5 | 3.0 | 42.0 | 22.0 |
| 111021 | 35.512 | I.D. 6 | 4.0 | 50.0 | 26.0 |
| 111022 | 35.513 | I.D. 8 | 5.6 | 58.0 | 30.0 |
| 111023 | 35.514 | I.D. 10 | 7.0 | 62.5 | 33.5 |
| 111024 | 35.515 | I.D. 12 | 8.6 | 69.0 | 36.0 |
| 111025 | 35.516 | I.D. 13 | 8.6 | 68.0 | 36.0 |
| 111026 | 35.517 | I.D. 16 | 12.0 | 81.0 | 45.0 |
| 111027 | 35.518 | I.D. 19 | 15.0 | 85.0 | 45.0 |
| 111028 | 35.519 | I.D. 25 | 21.0 | 105.0 | 52.5 |



35.524

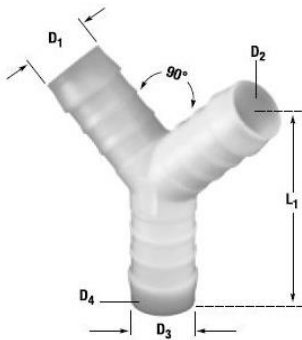
Reducing T push-on connector, POM

| Art. No. | Type No. | For hose D ₁ mm | I.D. D ₂ mm | For hose D ₃ mm | I.D. D ₄ mm | L ₁ mm | L ₂ mm |
|----------|----------|----------------------------------|------------------------------|----------------------------------|------------------------------|----------------------|----------------------|
| 111029 | 35.520 | I.D. 3 | 2.5 | I.D. 4 | 2.5 | 25.0 | 17.5 |
| 111030 | 35.521 | I.D. 4 | 2.7 | I.D. 6 | 4.0 | 37.0 | 24.0 |
| 111031 | 35.522 | I.D. 6 | 4.0 | I.D. 4 | 2.5 | 49.0 | 20.5 |
| 111032 | 35.523 | I.D. 8 | 5.6 | I.D. 4 | 2.5 | 56.0 | 22.0 |
| 111033 | 35.524 | I.D. 8 | 5.6 | I.D. 6 | 4.0 | 56.0 | 28.0 |
| 111034 | 35.525 | I.D. 10 | 7.0 | I.D. 6 | 4.0 | 62.0 | 28.0 |
| 111035 | 35.526 | I.D. 10 | 7.0 | I.D. 8 | 5.6 | 62.0 | 31.0 |
| 111036 | 35.527 | I.D. 12 | 8.6 | I.D. 6 | 4.0 | 69.0 | 29.0 |
| 111037 | 35.528 | I.D. 12 | 8.6 | I.D. 8 | 5.6 | 69.0 | 31.0 |
| 111038 | 35.529 | I.D. 12 | 8.6 | I.D. 10 | 7.0 | 69.0 | 33.0 |
| 111039 | 35.530 | I.D. 18 | 14.0 | I.D. 10 | 7.0 | 79.0 | 36.0 |
| 111040 | 35.531 | I.D. 18 | 14.0 | I.D. 15 | 11.0 | 80.0 | 44.0 |



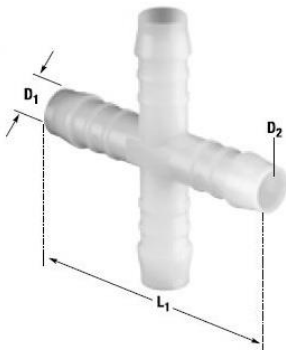
Y-hose connector, 90° angle, POM

| Art. No. | Type No. | For hose | Nozzle | L ₁ mm |
|----------|----------|----------------------|----------------------|----------------------|
| | | D ₁ mm | D ₂ mm | |
| 111041 | 36.610 | I.D. 3 | I.D. 2,5 | 21.0 |
| 111042 | 36.611 | I.D. 4 | I.D. 2,5 | 25.5 |
| 111043 | 36.611/5 | I.D. 5 | I.D. 3,0 | 43.0 |
| 111044 | 36.612 | I.D. 6 | I.D. 4,0 | 44.0 |
| 111045 | 36.613 | I.D. 8 | I.D. 5,6 | 51.0 |
| 111046 | 36.614 | I.D. 10 | I.D. 7,0 | 54.0 |
| 111047 | 36.615 | I.D. 12 | I.D. 8,6 | 64.0 |
| 111048 | 36.616 | I.D. 13 | I.D. 9,0 | 65.0 |
| 111049 | 36.617 | I.D. 16 | I.D. 12,0 | 67.0 |
| 111050 | 36.618 | I.D. 19 | I.D. 15,0 | 72.0 |


36.713

Reducing Y push-on connector, POM

| Art. No. | Type No. | For hose | I.D. | For hose | I.D. | L ₁ mm |
|----------|----------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | D ₁ mm | D ₂ mm | D ₃ mm | D ₄ mm | |
| 111051 | 36.711 | I.D. 4 | 2.7 | I.D. 6 | 4.0 | 35.0 |
| 111052 | 36.713 | I.D. 6 | 4.0 | I.D. 8 | 5.6 | 49.0 |


37.112

Cross push-on connector, POM

| Art. No. | Type No. | For hose | I.D. | L ₁ mm |
|----------|----------|----------------------|----------------------|----------------------|
| | | D ₁ mm | D ₂ mm | |
| 111053 | 37.111 | I.D. 4 | 2.9 | 39.0 |
| 111054 | 37.112 | I.D. 6 | 4.0 | 48.0 |
| 111055 | 37.115 | I.D. 12 | 8.6 | 69.0 |

Chemical properties of the plastics used

| No. | Chemical substance | Concentration | Temperature | POM | PA 6 |
|-----|---|-----------------------------|---------------|-----|------|
| 1 | Acetone | 100% | 20 °C / 50 °C | 1/3 | 1/0 |
| 2 | Formic acid | 98-100% | 20 °C / 50 °C | 4/4 | 4/4 |
| 3 | Ammonium hydroxide (spirits of ammonia) | Any | 20 °C / 50 °C | 1/2 | 1/0 |
| 4 | Benzene; normal and super unleaded | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 5 | Benzene, benzene hydrocarbons | 100% | 20 °C / 50 °C | 3/3 | 1/0 |
| 6 | Bleaching lye (12.5% active chlorine) | Aqueous solution 12.5% | 20 °C / 50 °C | 4/4 | 4/4 |
| 7 | Brake fluid (DOT4) | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 8 | Butanol | Technically pure | 20 °C / 50 °C | 1/2 | 1/2 |
| 9 | Chlorine, chlorine water | Commercial | 20 °C / 50 °C | 4/4 | 4/4 |
| 10 | Disinfectant phenols | Diluted solution | 20 °C / 50 °C | 4/4 | 4/4 |
| 11 | Diesel fuel, diesel oil | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 12 | Decalcifier | Aqueous solution~10% | 20 °C / 50 °C | 4/4 | 4/4 |
| 13 | Photographic developer (1:100) | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 14 | Natural gas (town gas, coal gas) | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 15 | Crude oil | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 16 | Acetic acid (glacial acetic acid) | 90 % | 20 °C / 50 °C | 4/4 | 4/4 |
| 17 | Ethyl alcohol | 96 % (tech. pure) | 20 °C / 50 °C | 1/2 | 1/2 |
| 18 | Photographic emulsion | Commercial | 20 °C / 50 °C | 1/0 | 1/0 |
| 19 | Fruit juices | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 20 | Glycerine | Technically pure | 20 °C / 50 °C | 1/1 | 1/1 |
| 21 | Glysantin | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 22 | Heating oil | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 23 | Hydraulic fluid | Commercial | 20 °C / 50 °C | 1/0 | 1/0 |
| 24 | Carbon dioxide, carbonic acid | Technically pure, saturated | 20 °C / 50 °C | 1/1 | 1/0 |
| 25 | Coolants (based on glycol) | Commercial | 20 °C / 50 °C | 1/1 | 3/3 |
| 26 | Methane | Technically pure | 20 °C / 50 °C | 1/1 | 1/1 |
| 27 | Methanol | Technically pure | 20 °C / 50 °C | 1/1 | 1/1 |
| 28 | Methyl ethyl ketone | 100% | 20 °C / 50 °C | 3/3 | 1/0 |
| 29 | Engine oils (HD) | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 30 | Sodium hydroxide (lye; caustic soda) | 40% | 20 °C / 50 °C | 1/1 | 1/1 |
| 31 | Ozone | Gaseous | 20 °C / 50 °C | 4/4 | 3/4 |
| 32 | Propanol | Technically pure | 20 °C / 50 °C | 1/1 | 1/1 |
| 33 | Propane (liquefied gas) | Liquid | 20 °C / 50 °C | 1/1 | 1/0 |
| 34 | Propene | 96 % | 20 °C / 50 °C | 1/0 | 1/0 |
| 35 | Rape oil (rape oil methyl ester) | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 36 | Hydrochloric acid | Aqueous, 10% | 20 °C / 50 °C | 4/4 | 4/4 |
| 37 | Lubricating oil/grease, soft soap | Commercial | 20 °C / 50 °C | 1/1 | 1/1 |
| 38 | Sulphuric acid | Aqueous, 10% | 20 °C / 50 °C | 4/4 | 3/3 |
| 39 | De-icing salt solution (brine) | Saturated | 20 °C / 50 °C | 1/2 | 1/1 |
| 40 | Soap suds (dissolved detergent) | Diluted solution | 20 °C / 50 °C | 1/1 | 1/1 |
| 41 | Water (drinking, river, sea) | Technically pure | 20 °C / 50 °C | 1/1 | 1/1 |
| 42 | Citric acid | 10 % | 20 °C / 50 °C | 2/4 | 1/0 |

0 = No data available/Not possible to make an appropriate statement

1 = Highly stable/suitable (change in dimensions: none or negligible and reversible; no damage even after extended period)

2 = Very stable/suitable (change in dimensions after short period: none or negligible and reversible; little change in dimensions, possibly irreversible change to properties after extended period)

3 = Limited stability (considerable changes to dimensions, possibly irreversible change to properties after extended period)

4 = Unstable/unsuitable (soluble or serious effects after a short period)

* The specifications in this data sheet are based on tests carried out by the granular material manufacturer. They are intended to serve as guidelines for our customers, but cannot simply be applied to any case in which customers expose these products to demands which fall outside the scope of the tests performed. On no account should this be done without first consulting us.

Our customers must perform their own tests to determine whether our plastic hose connecting components are suitable for the application they are intended to be used in. We will be happy to offer any advice or information required.