The best way to connect hose and tube

NORMAPLAST® – Plastic Products

Over the years these top quality very versatile connectors have been used in millions of different applications and the product has become an indispensable aid to the domestic, commercial, industrial and automotive market sectors.
NORMAPLAST® SV products are proven plastic hose and tube connectors which connect fluid carrying lines reliably and at a reasonable price.

NORMAPLAST® SV hose and tube connectors can be used in motor vehicles as well as in nearly every industrial application.

Short description of technical features

The advantages at a glance

- High strength
- Toughness
- Low weight
- Shock damping
- Scuff resistance
- High impact resistance
1. Taper thread connector
These NORMAPLAST® SV connectors made of Polyamide 6 feature on one end a tapered thread and on the other end one or two push-on spigots. The ribbed surface of the push-on spigots ensures that the hoses are tight-fit after assembly. Three different thread geometries are distinguished by means of colour coding allowing for a quick visual identification:
- Metric taper thread: light grey
- Whitworth pipe thread: charcoal
- NPT thread: black
(Other materials are available on request)

2. Hose connectors
With these NORMAPLAST® SV connectors without thread hoses are connected quickly and easily with one another by just pushing the hose onto the connectors. The ribbed surface of the push-on spigots ensures that the hoses are tight-fit after assembly. The NORMAPLAST® SV hose connectors are made of ecru-coloured POM (acetalcopolymerisat); other materials are available on request.

3. Compression
The NORMAPLAST® SV threaded connectors feature on one end a metric thread and on the other end one or two pipe unions. These compression connectors are made of black polyamide 6 with 30 % glass-fibre reinforcement.

4. Push-on connectors
These NORMAPLAST® SV parts are used for connecting plastic pipes made of PA6 or PA12. With these connectors safe connections can be achieved even without the use of additional hose clips. The push-on connectors are made of black polyamide 6 or polyamide 12 containing 30 % glass fibre reinforcement. The connectors can be supplied with O-rings on request.
Product & Material Properties

Thermal Properties

For the threaded connecting pieces the coefficient of expansion of 100 x 10^-6 must be considered if there is any exposure to temperature fluctuations. Our standard materials are classified under the UL (Underwriters Laboratories) system:
Flammability (UL94)
POM, PP, PA6, PA6.6, and PA12 : HB (Horizontal Burning)

Chemical properties of the plastic materials used

<table>
<thead>
<tr>
<th>No.</th>
<th>Chemical Substance</th>
<th>Concentration</th>
<th>Temperature</th>
<th>POM</th>
<th>PP</th>
<th>PA 6</th>
<th>PA 6.6</th>
<th>PA 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Acetone</td>
<td>100%</td>
<td>20 °C/50 °C</td>
<td>1/3</td>
<td>1/1</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
</tr>
<tr>
<td>2</td>
<td>Formic acid</td>
<td>98–100%</td>
<td>20 °C/50 °C</td>
<td>4/4</td>
<td>1/3</td>
<td>4/4</td>
<td>4/4</td>
<td>4/4</td>
</tr>
<tr>
<td>3</td>
<td>Ammonium hydroxide (spirits of ammonia)</td>
<td>Any</td>
<td>20 °C/50 °C</td>
<td>1/2</td>
<td>1/1</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
</tr>
<tr>
<td>4</td>
<td>Fuel (Super Unleaded, Normal)</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>3/4</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>5</td>
<td>Benzene, B. hydrocarbons</td>
<td>100%</td>
<td>20 °C/50 °C</td>
<td>3/3</td>
<td>3/4</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
</tr>
<tr>
<td>6</td>
<td>Bleaching lye (12.5% active chlorine)</td>
<td>Aqueous solution 12.5%</td>
<td>20 °C/50 °C</td>
<td>4/4</td>
<td>3/3</td>
<td>4/4</td>
<td>4/4</td>
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<tr>
<td>7</td>
<td>Brake fluid (DOT4)</td>
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<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>8</td>
<td>Butane</td>
<td>Technically pure</td>
<td>20 °C/50 °C</td>
<td>1/2</td>
<td>1/1</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
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<tr>
<td>10</td>
<td>Disinfectant phenols</td>
<td>Diluted solution</td>
<td>20 °C/50 °C</td>
<td>4/4</td>
<td>1/1</td>
<td>4/4</td>
<td>4/4</td>
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<tr>
<td>11</td>
<td>Diesel fuel, Diesel oil</td>
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<td>1/3</td>
<td>1/1</td>
<td>1/1</td>
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<tr>
<td>12</td>
<td>Decalcifier</td>
<td>Aqueous solution ~ 10%</td>
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<td>1/1</td>
<td>2/3</td>
<td>2/3</td>
<td>2/3</td>
</tr>
<tr>
<td>13</td>
<td>Photographic developer (1:100)</td>
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<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>4/4</td>
<td>4/4</td>
<td>4/4</td>
</tr>
<tr>
<td>14</td>
<td>Town gas (coal gas, natural gas)</td>
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<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
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</tr>
<tr>
<td>15</td>
<td>Crude oil</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>3/3</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>16</td>
<td>Acetic acid (glacial acetic acid)</td>
<td>90%</td>
<td>20 °C/50 °C</td>
<td>4/4</td>
<td>1/2</td>
<td>4/4</td>
<td>4/4</td>
<td>4/4</td>
</tr>
<tr>
<td>17</td>
<td>Ethyl alcohol</td>
<td>96% (techn. pure)</td>
<td>20 °C/50 °C</td>
<td>1/2</td>
<td>1/1</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
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<tr>
<td>18</td>
<td>Photographic emulsion</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/0</td>
<td>1/1</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
</tr>
<tr>
<td>19</td>
<td>Fruit juices</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>20</td>
<td>Glycerine</td>
<td>Technically pure</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
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<tr>
<td>21</td>
<td>Glycol</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>3/3</td>
<td>3/3</td>
<td>3/3</td>
</tr>
<tr>
<td>22</td>
<td>Heating oil</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/3</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>23</td>
<td>Hydraulic fluids</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/0</td>
<td>1/3</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>24</td>
<td>Carbon dioxide, carbonic acid</td>
<td>Technically pure, saturated</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
</tr>
<tr>
<td>25</td>
<td>Coolants (based on Glycol)</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>3/3</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>26</td>
<td>Methane</td>
<td>Technically pure</td>
<td>20 °C/50 °C</td>
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<td>1/1</td>
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<td>1/1</td>
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</tr>
<tr>
<td>27</td>
<td>Methanol</td>
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<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>3/3</td>
</tr>
<tr>
<td>28</td>
<td>Methyl ethyl ketone</td>
<td>100%</td>
<td>20 °C/50 °C</td>
<td>3/3</td>
<td>1/3</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
</tr>
<tr>
<td>29</td>
<td>HD engine oils</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/3</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
</tbody>
</table>
### Chemical Compatibility Table

<table>
<thead>
<tr>
<th>No.</th>
<th>Chemical Substance</th>
<th>Concentration</th>
<th>Temperature</th>
<th>POM</th>
<th>PP</th>
<th>PA 6</th>
<th>PA 6.6</th>
<th>PA 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Sodium hydroxide</td>
<td>40%</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>31</td>
<td>Ozone</td>
<td>Gaseous</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>32</td>
<td>Propanol</td>
<td>Technically pure</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>33</td>
<td>Propane (liquefied gas)</td>
<td>Fluid</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
</tr>
<tr>
<td>34</td>
<td>Propane</td>
<td>96%</td>
<td>20 °C/50 °C</td>
<td>1/0</td>
<td>1/1</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
</tr>
<tr>
<td>35</td>
<td>Rape oil (RME)</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>2/2</td>
<td>(*)</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>36</td>
<td>Hydrochloric acid</td>
<td>Aqueous, 10%</td>
<td>20 °C/50 °C</td>
<td>4/4</td>
<td>1/1</td>
<td>4/4</td>
<td>3/3</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Lubricating oils with HD or EP</td>
<td>Commercial</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/2</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>38</td>
<td>Sulphuric acid</td>
<td>Aqueous, 10%</td>
<td>20 °C/50 °C</td>
<td>4/4</td>
<td>1/2</td>
<td>3/3</td>
<td>3/3</td>
<td>2/2</td>
</tr>
<tr>
<td>39</td>
<td>De-icing salt (solutions)</td>
<td>Saturated</td>
<td>20 °C/50 °C</td>
<td>1/2</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>40</td>
<td>Soap suds</td>
<td>Solution, diluted</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>2/2</td>
<td>(*)</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>41</td>
<td>Water (drinking, river, sea)</td>
<td>Technically pure</td>
<td>20 °C/50 °C</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
<td>1/1</td>
</tr>
<tr>
<td>42</td>
<td>Citric acid</td>
<td>10%</td>
<td>20 °C/50 °C</td>
<td>2/4</td>
<td>1/1</td>
<td>1/0</td>
<td>1/0</td>
<td>1/0</td>
</tr>
</tbody>
</table>

**Abbreviations:**
- **POM** = Acetalcopolymerisat
- **PP** = Polypropylen
- **PA** = Polyamide

- **0** = No statement available / no declaration possible
- **1** = Very stable / applicable
  - (Change in dimensions: none or negligible and reversible after a short period of time; slightly changed dimensions, possibly irreversible changes in the material characteristics after a longer period of time)
- **2** = Very stable / applicable
  - (Change in dimensions: considerable changes; possibly irreversible changes in the material characteristics after a longer period of time)
- **3** = Conditionally applicable
  - (Change in dimensions: considerable changes; possibly irreversible changes in the material characteristics after a longer period of time)
- **4** = Not stable / not applicable
  - (Soluble or extremely affected after a short period of time)
- (*) Moisture expansion

The details given in this brochure are based on tests carried out by the granulate manufacturer. They are given as guidelines for our customers but cannot be applied to cases where our customers expect these products to meet requirements not covered by testing.

In such cases customers must consult us in advance. Our customers must conduct their own tests to ensure that NORMAPLAST® plastic hose connectors are suitable for their intended purpose. We would be pleased to provide help and advice in any way. Liability is strictly limited to our general terms and conditions of sale.

Custom versions will be available if a sufficiently large quantity is ordered. Before use as a safety component, please consult the manufacturer. We reserve the right to make technical changes.
Survey of sizes
NORMAPLAST® taper thread connectors

GES
Straight taper thread connectors

<table>
<thead>
<tr>
<th>Description</th>
<th>Packaging</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>L1~</th>
<th>SW</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>GES 3 / M 5</td>
<td>100</td>
<td>3</td>
<td>M 5</td>
<td>2.5</td>
<td>19.5</td>
<td>6</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 4 / M 8 x 1</td>
<td>100</td>
<td>4</td>
<td>M 8 x 1 keg</td>
<td>2.5</td>
<td>27</td>
<td>10</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 4 / M 8 x 1.25</td>
<td>100</td>
<td>4</td>
<td>M 8 x 1.25 keg</td>
<td>2.5</td>
<td>27</td>
<td>10</td>
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<tr>
<td>GES 4 / M 10 x 1</td>
<td>100</td>
<td>4</td>
<td>M 10 x 1 keg</td>
<td>2.5</td>
<td>27</td>
<td>10</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 4 / M 12 x 1.5</td>
<td>100</td>
<td>4</td>
<td>M 12 x 1.5 keg</td>
<td>2.5</td>
<td>32</td>
<td>14</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 4 / M 14 x 1.5</td>
<td>100</td>
<td>4</td>
<td>M 14 x 1.5 keg</td>
<td>2.5</td>
<td>32</td>
<td>14</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 4 / R 1/8</td>
<td>100</td>
<td>4</td>
<td>R 1/8 keg</td>
<td>2.5</td>
<td>27</td>
<td>10</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 4 / R 1/4</td>
<td>100</td>
<td>4</td>
<td>R 1/4 keg</td>
<td>2.5</td>
<td>32</td>
<td>14</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 4 / 1/8 NPT</td>
<td>100</td>
<td>4</td>
<td>1/8 NPT</td>
<td>2.5</td>
<td>29</td>
<td>10</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 4 / 1/4 NPT</td>
<td>100</td>
<td>4</td>
<td>1/4 NPT</td>
<td>2.5</td>
<td>35</td>
<td>14</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 5 / M 12 x 1.5</td>
<td>100</td>
<td>5</td>
<td>M 12 x 1.5 keg</td>
<td>3</td>
<td>36</td>
<td>14</td>
<td>Polyamide</td>
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<tr>
<td>GES 5 / M 14 x 1.5</td>
<td>100</td>
<td>5</td>
<td>M 14 x 1.5 keg</td>
<td>3</td>
<td>36</td>
<td>14</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 5 / R 1/4</td>
<td>100</td>
<td>5</td>
<td>R 1/4 keg</td>
<td>3</td>
<td>36</td>
<td>14</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 5 / R 1/4 NPT</td>
<td>100</td>
<td>5</td>
<td>1/4 NPT</td>
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<td>100</td>
<td>6</td>
<td>M 10 x 1 keg</td>
<td>4</td>
<td>32.5</td>
<td>10</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 6 / M 12 x 1.5</td>
<td>100</td>
<td>6</td>
<td>M 12 x 1.5 keg</td>
<td>4</td>
<td>37.5</td>
<td>14</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 6 / M 14 x 1.5</td>
<td>100</td>
<td>6</td>
<td>M 14 x 1.5 keg</td>
<td>4</td>
<td>36.5</td>
<td>14</td>
<td>Polyamide</td>
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<tr>
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<td>6</td>
<td>R 1/8 keg</td>
<td>4</td>
<td>32.5</td>
<td>10</td>
<td>Polyamide</td>
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<tr>
<td>GES 6 / R 1/4</td>
<td>100</td>
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<td>R 1/4 keg</td>
<td>4</td>
<td>37.5</td>
<td>14</td>
<td>Polyamide</td>
</tr>
<tr>
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<td>100</td>
<td>6</td>
<td>R 3/8 keg</td>
<td>4</td>
<td>39</td>
<td>17</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 6 / 1/8 NPT</td>
<td>100</td>
<td>6</td>
<td>1/8 NPT</td>
<td>4</td>
<td>34.5</td>
<td>10</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 6 / 1/4 NPT</td>
<td>100</td>
<td>6</td>
<td>1/4 NPT</td>
<td>4</td>
<td>40.5</td>
<td>14</td>
<td>Polyamide</td>
</tr>
<tr>
<td>GES 8 / M 10 x 1</td>
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All dimensions in mm. Please refer to the table on Page 163 for further information.
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All dimensions in mm. Please refer to the table on Page 163 for further information.

**BST**

Blanking plugs with screw-in thread

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### Survey of sizes

**NORMAPLAST® taper thread connectors**

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All dimensions in mm. Please refer to the table on Page 163 for further information.
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Straight push-on connectors

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All dimensions in mm. Please refer to the table on Page 163 for further information.

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Reducing straight push-on connectors

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All dimensions in mm. Please refer to the table on Page 163 for further information.
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# Survey of sizes

**NORMAPLAST®** push-on connectors

## TRS

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All dimensions in mm. Please refer to the table on Page 163 for further information.

## YRS

### Reducing Y push-on connectors

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All dimensions in mm. Please refer to the table on Page 163 for further information.
### WS
Elbow push-on connectors

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All dimensions in mm. Please refer to the table on Page 163 for further information.

### YS
Equal Y push-on connectors

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All dimensions in mm. Please refer to the table on Page 163 for further information.
### GN
Straight plastic pipe connectors

<table>
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<th>D₂</th>
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All dimensions in mm. Please refer to the table on Page 163 for further information.

### TN
T plastic pipe connectors

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<td>1000</td>
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* GF = glass fibre content
All dimensions in mm. Please refer to the table on Page 163 for further information.
**WN**

Elbow plastic pipe connectors

<table>
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<th>Packaging IC</th>
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<td>6.8</td>
<td>29</td>
<td>29</td>
<td>Polyamide 6 or 12; 30% GF*</td>
</tr>
<tr>
<td>WN 10</td>
<td>1000</td>
<td>11</td>
<td>8</td>
<td>30</td>
<td>30</td>
<td>Polyamide 6 or 12; 30% GF*</td>
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<tr>
<td>WN 19</td>
<td>500</td>
<td>18.9</td>
<td>16</td>
<td>32</td>
<td>32</td>
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</table>

All dimensions in mm. Please refer to the table on Page 163 for further information.

**YN**

Y plastic pipe connectors

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</tbody>
</table>

*GF = glass fibre content

All dimensions in mm. Please refer to the table on Page 163 for further information.
# Survey of sizes

## NORMAPLAST® Compression Connectors

### EG

**Straight compression connectors**

<table>
<thead>
<tr>
<th>Description</th>
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<th>(D_1)</th>
<th>(D_2)</th>
<th>(L_1)</th>
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<th>Material</th>
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<td>100</td>
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<td>R 1/8 keg</td>
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<td>13</td>
<td>Polyamide 6; 30% GF*</td>
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<tr>
<td>EG 6 x 1 - R 1/4</td>
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<td>6 x 1</td>
<td>R 1/4 keg</td>
<td>31</td>
<td>17</td>
<td>Polyamide 6; 30% GF*</td>
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<tr>
<td>EG 6 x 1 - M 10 x 1</td>
<td>100</td>
<td>6 x 1</td>
<td>M 10 x 1 keg</td>
<td>25</td>
<td>13</td>
<td>Polyamide 6; 30% GF*</td>
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<tr>
<td>EG 8 x 1 - R 1/8</td>
<td>100</td>
<td>8 x 1</td>
<td>R 1/8 keg</td>
<td>25</td>
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<td>Polyamide 6; 30% GF*</td>
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<tr>
<td>EG 8 x 1 - R 1/4</td>
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<td>8 x 1</td>
<td>R 1/4 keg</td>
<td>31</td>
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<td>100</td>
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* GF = glass fibre content

All dimensions in mm. Please refer to the table on Page 163 for further information.

### EWS

**Swivel elbow compression connectors**

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<tr>
<td>EWS 6 x 1 - R 1/4</td>
<td>100</td>
<td>6 x 1</td>
<td>R 1/4 keg</td>
<td>15</td>
<td>23</td>
<td>33.5</td>
<td>17</td>
<td>Polyamide 6; 30% GF*</td>
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<tr>
<td>EWS 6 x 1 - M 10 x 1</td>
<td>100</td>
<td>6 x 1</td>
<td>M 10 x 1 keg</td>
<td>14</td>
<td>21</td>
<td>30</td>
<td>13</td>
<td>Polyamide 6; 30% GF*</td>
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<tr>
<td>EWS 8 x 1 - R 1/8</td>
<td>100</td>
<td>8 x 1</td>
<td>R 1/8 keg</td>
<td>14</td>
<td>21</td>
<td>30</td>
<td>13</td>
<td>Polyamide 6; 30% GF*</td>
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<tr>
<td>EWS 8 x 1 - R 1/4</td>
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<td>R 1/4 keg</td>
<td>15</td>
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<td>33.5</td>
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<tr>
<td>EWS 8 x 1 - M 10 x 1</td>
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<td>8 x 1</td>
<td>M 10 x 1 keg</td>
<td>14</td>
<td>21</td>
<td>30</td>
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* GF = glass fibre content

All dimensions in mm. Please refer to the table on Page 163 for further information.
### ETS
**Swivel T compression connectors**

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<tr>
<td>ETS 6 x 1 - R 1/4</td>
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<td>6 x 1</td>
<td>R 1/4</td>
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<td>ETS 6 x 1 - M 10 x 1</td>
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<td>M 10 x 1</td>
<td>14</td>
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<td>8 x 1</td>
<td>R 1/4</td>
<td>15</td>
<td>23</td>
<td>33.5</td>
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* GF = glass fibre content

All dimensions in mm. Please refer to the table on Page 163 for further information.

### ET
**T compression connectors**

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<th>D₂</th>
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<th>L₂~</th>
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<td>23</td>
<td>Polyamide 6; 30% GF*</td>
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<td>ET 6 x 1 - R 1/4</td>
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<td>6 x 1</td>
<td>R 1/4 keg</td>
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<td>23</td>
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<td>M 10 x 1 keg</td>
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<td>23</td>
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<td>ET 8 x 1 - R 1/8</td>
<td>100</td>
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<tr>
<td>ET 8 x 1 - R 1/4</td>
<td>100</td>
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<td>R 1/4 keg</td>
<td>23</td>
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<tr>
<td>ET 8 x 1 - M 10 x 1</td>
<td>100</td>
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<td>M 10 x 1 keg</td>
<td>19</td>
<td>23</td>
<td>Polyamide 6; 30% GF*</td>
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</table>

* GF = glass fibre content

All dimensions in mm. Please refer to the table on Page 163 for further information.
**NORMAPLAST® – Plastic Products**

**Survey of sizes**
**NORMAPLAST® Compression Connectors**

**EW / WV**
Elbow compression connectors

<table>
<thead>
<tr>
<th>Description</th>
<th>Packaging PU</th>
<th>D₁</th>
<th>D₂</th>
<th>L₁~</th>
<th>L₂~</th>
<th>Material</th>
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<tbody>
<tr>
<td>EW 6x1 - R 1/8</td>
<td>100</td>
<td>6x1</td>
<td>R 1/8</td>
<td>keg</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>EW 6x1 - R 1/4</td>
<td>100</td>
<td>6x1</td>
<td>R 1/4</td>
<td>keg</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>EW 6x1 - M 10x1</td>
<td>100</td>
<td>6x1</td>
<td>M 10x1</td>
<td>keg</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>EW 8x1 - R 1/8</td>
<td>100</td>
<td>8x1</td>
<td>R 1/8</td>
<td>keg</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>EW 8x1 - R 1/4</td>
<td>100</td>
<td>8x1</td>
<td>R 1/4</td>
<td>keg</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>EW 8x1 - M 10x1</td>
<td>100</td>
<td>8x1</td>
<td>M 10x1</td>
<td>keg</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>WV 6x1</td>
<td>100</td>
<td>6x1</td>
<td>6x1</td>
<td>23</td>
<td>23</td>
<td>Polyamide 6; 30% GF*</td>
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<tr>
<td>WV 8x1</td>
<td>100</td>
<td>8x1</td>
<td>8x1</td>
<td>23</td>
<td>23</td>
<td>Polyamide 6; 30% GF*</td>
</tr>
</tbody>
</table>

All dimensions in mm. Please refer to the table on Page 163 for further information.

**VT / VTR**
Equal T and reducing T compression connectors

<table>
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<tr>
<th>Description</th>
<th>Packaging PU</th>
<th>D₁</th>
<th>D₂</th>
<th>L₁~</th>
<th>L₂~</th>
<th>Material</th>
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<tbody>
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<td>VT 6x1</td>
<td>100</td>
<td>6x1</td>
<td>6x1</td>
<td>23</td>
<td>23</td>
<td>Polyamide 6; 30% GF*</td>
</tr>
<tr>
<td>VT 8x1</td>
<td>100</td>
<td>8x1</td>
<td>8x1</td>
<td>23</td>
<td>23</td>
<td>Polyamide 6; 30% GF*</td>
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<tr>
<td>VTR 6x1 - 8x1 - 6x1</td>
<td>100</td>
<td>6x1</td>
<td>8x1</td>
<td>23</td>
<td>23</td>
<td>Polyamide 6; 30% GF*</td>
</tr>
<tr>
<td>VTR 8x1 - 6x1 - 8x1</td>
<td>100</td>
<td>8x1</td>
<td>6x1</td>
<td>23</td>
<td>23</td>
<td>Polyamide 6; 30% GF*</td>
</tr>
</tbody>
</table>

All dimensions in mm. Please refer to the table on Page 163 for further information.
**VG / VGR**
Straight / reducing compression connectors

<table>
<thead>
<tr>
<th>Description</th>
<th>Packaging PU</th>
<th>D₁</th>
<th>L₁</th>
<th>SW</th>
<th>Material</th>
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</thead>
<tbody>
<tr>
<td>VG 6 x 1</td>
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<td>6 x 1</td>
<td>31</td>
<td>17</td>
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</tr>
<tr>
<td>VG 8 x 1</td>
<td>100</td>
<td>8 x 1</td>
<td>31</td>
<td>17</td>
<td>Polyamide 6; 30% GF*</td>
</tr>
<tr>
<td>VGR 8 x 1 - 6 x 1</td>
<td>100</td>
<td>6 x 1</td>
<td>31</td>
<td>17</td>
<td>Polyamide 6; 30% GF*</td>
</tr>
</tbody>
</table>

All dimensions in mm. Please refer to the table on Page 163 for further information.

**Assembly Instructions**

Pipe size: Outside ø - x wall thickness
Push the cap onto the pipe, push the pipe onto the sleeve up to the stop. Tighten the cap on the buttress thread up to the stop!
(If necessary, use commercially available pliers). The cap is also available as piece part.

**Applications**

Depending on the material used NORMAPLAST® hose and pipe connectors are the ideal connectors for lines transporting
- Water
- Air
- Oil
- Fuel

For details please refer to the table “Product and Material Properties” on page 142.