RESTRAIN™ Restrained Joint PVC-U Pipe For Trenchless Installation

(NON-PRESSURE APPLICATIONS ONLY)

**Compliance:** RESTRAIN™ pipes are manufactured in accordance with AS/NZS 1260, PVC-U pipes and fittings for drain, waste and vent applications. (Standards Mark Licence number SMKP20184.) SN stiffness class represents values in N/m/m. For example, SN16 pipe has a stiffness of 16000 N/m/m.

**Product Code:** RESTRAIN™ Series

**Description:** RESTRAIN™ is a plain wall SN16 pipe manufactured with threaded socket and spigot rubber ring joint

**Jointing:** Threaded socket and spigot with rubber seal ring conforming fully to the elastomeric seal joint requirements of AS/NZ 1260.

**Applications:**
- Gravity sewer applications installed by trenchless methodology
- Domestic house drains
- Urban gravity sewer mains
- Industrial gravity discharge mains

**Installation Methods:**
- Horizontal directional drilling
- Auger boring
- Guided boring
- Micro tunneling
- Pipe bursting / cracking
- Slip Lining On-line replacement (pipe reaming)

**Fittings:** Compatible with PVC sewer fittings conforming to AS/NZS 1260 DWV Fittings (PVC-U)
- Solvent Weld Joint (Coded ‘100’ Series) Injection Moulded fittings DN 100 - DN 150
- Rubber Ring Joint (Coded ‘1500’ Series) Injection Moulded fittings DN 100 - DN 150

**Design & Installation:** RESTRAIN™ pipe should be installed in accordance with the following Standards:
- Detailed Installation and Site Pressure Testing: AS/NZS 2566 Part 2 “Installation”

**Limitations:** RESTRAIN™ PVC pipe should not be used:
- With aromatic and chlorinated hydrocarbons ketones, esters and ethers
- For pumped or pressure applications
- At continuous service temperatures above 60°C, or for intermittent discharges of liquid above 75°C
- Without adequate support to the pipe in both above ground and below ground applications
- With pneumatic or concussive pipe bursting equipment

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**RESTRAIN™ Installation Load Capacity**

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Pipe O.D. / (mm)</th>
<th>Pipe &amp; Rubber Ring Joint Specification</th>
<th>Maximum Tensile Load During Installation</th>
<th>Maximum Compression Load During Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DN100</td>
<td>110</td>
<td>AS/NZS 1260 SN16</td>
<td>1,800 kg</td>
<td>1,800 kg</td>
</tr>
<tr>
<td>DN150</td>
<td>160</td>
<td>AS/NZS 1260 SN16</td>
<td>3,500 kg</td>
<td>3,000 kg</td>
</tr>
<tr>
<td>DN225</td>
<td>250</td>
<td>AS/NZS 1260 SN16</td>
<td>9,500 kg</td>
<td>9,500 kg</td>
</tr>
<tr>
<td>DN300</td>
<td>315</td>
<td>AS/NZS 1260 SN16</td>
<td>12,000 kg</td>
<td>12,000 kg</td>
</tr>
</tbody>
</table>

**RESTRAIN™ Pipe Dimensions**

<table>
<thead>
<tr>
<th>Nominal Size DN</th>
<th>Mean O.D. (mm)</th>
<th>Mean I.D. (mm)</th>
<th>Max O.D. at Socket</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>110.2</td>
<td>101.6</td>
<td>115.0</td>
</tr>
<tr>
<td>150</td>
<td>160.3</td>
<td>147.9</td>
<td>167.5</td>
</tr>
<tr>
<td>225</td>
<td>250.3</td>
<td>231.2</td>
<td>262</td>
</tr>
<tr>
<td>300</td>
<td>315.4</td>
<td>290.8</td>
<td>328</td>
</tr>
</tbody>
</table>

Minimum order quantities may apply

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Assembly and installation of DN150 RESTRAIN™ gravity sewer, replacing an old EW sewer by pipe reaming with a horizontal directional drill, Invercargill City.

Microrotunnelling installation of DN 225 (250mm OD) RESTRAIN™, Taranaki.