

# DIN EN ISO 11299-1:2013-05 (E)

## Plastics piping systems for renovation of underground gas supply networks - Part 1: General (ISO 11299-1:2011)

---

<b>Contents</b>		<b>Page</b>
Foreword .....		2
Introduction .....		4
<b>1</b>	<b>Scope .....</b>	<b>6</b>
<b>2</b>	<b>Normative references .....</b>	<b>6</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>6</b>
3.1	General .....	6
3.2	Techniques .....	8
3.3	Characteristics .....	9
3.4	Materials .....	10
3.5	Product stages .....	10
3.6	Service conditions .....	11
<b>4</b>	<b>Symbols and abbreviated terms .....</b>	<b>11</b>
4.1	Symbols .....	11
4.2	Abbreviated terms .....	11
<b>5</b>	<b>Pipes at the "M" stage .....</b>	<b>11</b>
5.1	Materials .....	11
5.2	General characteristics .....	11
5.3	Material characteristics .....	12
5.4	Geometric characteristics .....	12
5.5	Mechanical characteristics .....	12
5.6	Physical characteristics .....	12
5.7	Jointing .....	12
5.8	Marking .....	12
<b>6</b>	<b>Fittings at the "M" stage .....</b>	<b>12</b>
6.1	Materials .....	12
6.2	General characteristics .....	13
6.3	Material characteristics .....	13
6.4	Geometric characteristics .....	13
6.5	Mechanical characteristics .....	13
6.6	Physical characteristics .....	13
6.7	Jointing .....	13
6.8	Marking .....	13
<b>7</b>	<b>Ancillary components .....</b>	<b>13</b>
<b>8</b>	<b>Fitness for purpose of the installed lining system at the "I" stage .....</b>	<b>14</b>
8.1	Materials .....	14
8.2	General characteristics .....	14
8.3	Material characteristics .....	14
8.4	Geometric characteristics .....	14
8.5	Mechanical characteristics .....	14
8.6	Physical characteristics .....	15
8.7	Additional characteristics .....	15
8.8	Sampling .....	15

<b>9</b>	<b>Installation practice .....</b>	<b>15</b>
<b>9.1</b>	<b>Preparatory work .....</b>	<b>15</b>
<b>9.2</b>	<b>Storage, handling and transport of pipes and fittings .....</b>	<b>15</b>
<b>9.3</b>	<b>Equipment .....</b>	<b>15</b>
<b>9.4</b>	<b>Installation .....</b>	<b>16</b>
<b>9.5</b>	<b>Process-related inspection and testing .....</b>	<b>16</b>
<b>9.6</b>	<b>Lining termination .....</b>	<b>16</b>
<b>9.7</b>	<b>Reconnecting to the existing pipeline system .....</b>	<b>17</b>
<b>9.8</b>	<b>Transfer of service lines .....</b>	<b>17</b>
<b>9.9</b>	<b>Final inspection and testing .....</b>	<b>17</b>
<b>9.10</b>	<b>Documentation .....</b>	<b>17</b>
	<b>Bibliography .....</b>	<b>18</b>