

# ISO 10838-3:2001-04 (E)

## Mechanical fittings for polyethylene piping systems for the supply of gaseous fuels - Part 3: Thermoplastics fittings for pipes of nominal outside diameter less than or equal to 63 mm

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Normative references .....</b>	<b>1</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>2</b>
<b>4</b>	<b>Symbols and abbreviated terms .....</b>	<b>3</b>
<b>5</b>	<b>Materials .....</b>	<b>4</b>
<b>5.1</b>	<b>General .....</b>	<b>4</b>
<b>5.2</b>	<b>Metal components .....</b>	<b>4</b>
<b>5.3</b>	<b>Plastics materials .....</b>	<b>4</b>
<b>5.4</b>	<b>Elastomers .....</b>	<b>5</b>
<b>5.5</b>	<b>Other materials .....</b>	<b>5</b>
<b>6</b>	<b>Individual fittings .....</b>	<b>5</b>
<b>6.1</b>	<b>Design and construction .....</b>	<b>5</b>
<b>6.2</b>	<b>Appearance .....</b>	<b>5</b>
<b>6.3</b>	<b>Fittings with socket fusion ends .....</b>	<b>5</b>
<b>6.4</b>	<b>Fittings with spigot ends .....</b>	<b>5</b>
<b>6.5</b>	<b>Fittings with electrofusion sockets .....</b>	<b>6</b>
<b>6.6</b>	<b>Minimum wall thickness of body .....</b>	<b>6</b>
<b>6.7</b>	<b>Minimum bore .....</b>	<b>6</b>
<b>7</b>	<b>Test pieces .....</b>	<b>6</b>
<b>8</b>	<b>Test requirements .....</b>	<b>6</b>
<b>8.1</b>	<b>Leaktightness test .....</b>	<b>6</b>
<b>8.2</b>	<b>Leaktightness with bending and temperature cycling .....</b>	<b>6</b>
<b>8.3</b>	<b>Leaktightness after tensile testing .....</b>	<b>6</b>
<b>8.4</b>	<b>Hydrostatic strength .....</b>	<b>7</b>
<b>8.5</b>	<b>Determination of gas flow rate/pressure drop relationship .....</b>	<b>7</b>
<b>9</b>	<b>Test methods .....</b>	<b>7</b>
<b>9.1</b>	<b>Leaktightness testing .....</b>	<b>7</b>
<b>9.2</b>	<b>Leaktightness with bending and temperature cycling .....</b>	<b>7</b>
<b>9.3</b>	<b>Leaktightness after tensile testing .....</b>	<b>8</b>
<b>9.4</b>	<b>Hydrostatic strength at 80 °C .....</b>	<b>10</b>
<b>9.5</b>	<b>Determination of gas flow rate/pressure drop relationship .....</b>	<b>10</b>
<b>10</b>	<b>Marking .....</b>	<b>11</b>
<b>10.1</b>	<b>General .....</b>	<b>11</b>
<b>10.2</b>	<b>Permanent marking (e.g. by moulding or indent marking on the body of the fitting) .....</b>	<b>11</b>
<b>10.3</b>	<b>Permanent marking on the fitting or on a label .....</b>	<b>11</b>
<b>11</b>	<b>Packaging and storage .....</b>	<b>11</b>

<b>Annex A (informative) Material specifications for mechanical fittings .....</b>	<b>12</b>
<b>Annex B (informative) Typical arrangement for applying a tensile force to a lateral connection .....</b>	<b>14</b>