

## **Technical Code DVS 2207-3**

### **Welding thermoplastic materials**

### **Hot-gas string-bead welding, hot-gas welding with torch separate from filler rod pipes, pipe components and sheets**

### **Procedures, requirements**

Technical Committee in DVS

Working Group W4 "Joining Plastics"

Subgroup W4.1b "Hot-gas welding"

This publication has been drawn up by a group of experienced specialists working in an honorary capacity and its consideration as an important source of information is recommended. The user should always check to what extent the contents are applicable to his particular case and whether the version on hand is still valid. No liability can be accepted by the DVS – Deutscher Verband für Schweißen und verwandte Verfahren e.V., and those participating in the drawing up of the document.

**Content:**

<b>1.</b>	<b>Scope .....</b>	<b>3</b>
<b>2.</b>	<b>General requirements .....</b>	<b>3</b>
<b>3.</b>	<b>Materials.....</b>	<b>3</b>
<b>4.</b>	<b>General process description.....</b>	<b>3</b>
4.1.	Hot-gas welding with torch separate from filler rod .....	4
4.2.	Hot-gas string-bead welding .....	4
<b>5.</b>	<b>Device types .....</b>	<b>5</b>
<b>6.</b>	<b>Structural design, weld seam shapes and weld seam structure .....</b>	<b>6</b>
<b>7.</b>	<b>Requirements .....</b>	<b>8</b>
7.1.	Requirements for the materials and their weldability .....	8
7.2.	Requirements for the quality of the welded joints .....	8
7.3.	Requirements for the welding equipment and accessories .....	9
<b>8.</b>	<b>Commissioning the welding equipment and setting the welding parameters.....</b>	<b>9</b>
<b>9.</b>	<b>Welding preparations .....</b>	<b>9</b>
9.1.	Equipment, workplace and environmental influences .....	10
9.2.	Protection against environmental influences.....	10
<b>10.</b>	<b>Welding .....</b>	<b>10</b>
10.1.	Preparing the joint surfaces and the filler material .....	10
10.2.	Tacking.....	11
10.3.	Hot-gas welding with torch separate from filler rod .....	11
10.4.	Hot-gas string-bead welding .....	12
10.5.	Mechanical post-processing of the seam.....	12
10.6.	Thermal post-treatment.....	12
10.7.	Welding protocol .....	12
<b>11.</b>	<b>Checking the welded joints.....</b>	<b>12</b>
<b>12.</b>	<b>Safety guidelines .....</b>	<b>14</b>
<b>13.</b>	<b>References.....</b>	<b>14</b>