

*This text is intended for men and women to an equal extent. However, for better readability, it was decided not to use the consistent formulation in the male/female form in the text and only the male form is specified.*

## Technical Code DVS 2212-4

# Qualification testing of plastics welders; welding of PE casing pipes – Pipes and piping parts

Education Committee of the DVS

Working Group W 4 “Joining Plastics”

Subgroup W 4.6 „Training and Qualification Testing“

AGFW, „The Energy Efficiency Association for Heat, Cold and Combined Heating and Power“

Education Committee of the DVS

Professional group „Training and Qualification Testing“

This publication has been drawn up by a group of experienced specialists working in an honorary capacity and its consideration 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 and purpose</b> .....	<b>3</b>
1.1.	Scope.....	3
1.2.	Assurance of the quality.....	3
<b>2.</b>	<b>Qualification testing agencies and qualification testers for plastics welders</b> .....	<b>3</b>
<b>3.</b>	<b>Prerequisites for the qualification tests and designation</b> .....	<b>4</b>
3.1.	Admission to the first qualification tests.....	4
3.2.	Base and welding filler materials.....	4
3.3.	Designation.....	4
<b>4.</b>	<b>Proof of knowledge and skills</b> .....	<b>4</b>
4.1.	Theoretical qualification test.....	5
4.2.	Practical qualification test.....	5
<b>5.</b>	<b>Welding of the test piece</b> .....	<b>6</b>
5.1.	Welding supervision.....	6
5.2.	Test piece preparation and manufacture of the test piece.....	6
5.3.	Substitute test piece.....	7
<b>6.</b>	<b>Test specimens for visual inspections and mechanical-technological tests</b> .....	<b>7</b>
<b>7.</b>	<b>Inspection, testing and assessment of the test piece and the test specimens</b> .....	<b>8</b>
7.1.	Inspection and testing contents.....	8
7.2.	Manufacture of the test piece.....	9
7.3.	Visual evaluations of the test piece and the test specimens.....	9
7.4.	Mechanical-technological testing.....	9
7.5.	Tensile test.....	10
7.6.	Single bending test.....	10
<b>8.</b>	<b>Qualification test results, substitute test specimens and proof of qualification</b> .....	<b>10</b>
8.1.	Theoretical qualification test.....	10
8.2.	Practical qualification test.....	10
8.3.	Substitute test piece and substitute test specimens.....	11
8.4.	Overall result.....	11
8.5.	Proof of qualification.....	11
8.6.	Failed qualification test.....	11
<b>9.</b>	<b>Repeat qualification test</b> .....	<b>12</b>
9.1.	Period of validity of the qualification test.....	12
9.2.	Extension of the period on the basis of work specimens.....	12
9.3.	Execution provisions.....	12
<b>10.</b>	<b>Literature</b> .....	<b>13</b>