

# DIN 4726:2017-10 (E)

## Warm water surface heating systems and radiator connecting systems - Plastics piping systems and multilayer piping systems

---

<b>Contents</b>	<b>Page</b>
Foreword .....	4
1 Scope .....	5
2 Normative references .....	5
3 Terms and definitions.....	7
4 Requirements.....	7
4.1 General .....	7
4.2 Homogeneity.....	7
4.3 Bending radii .....	7
4.4 Oxygen permeability .....	7
4.4.1 Thermal stability of barrier materials .....	7
4.4.2 Barrier layer thickness.....	8
4.4.3 Oxygen permeability .....	8
4.5 Specificity.....	8
4.6 Water additives: Compatibility with plastics pipes according to this standard .....	8
5 Testing .....	9
5.1 General .....	9
5.2 Homogeneity.....	9
5.3 Bending radii .....	9
5.4 Oxygen permeability .....	9
5.4.1 Thermal stability of barrier materials .....	9
5.4.2 Barrier layer thickness.....	9
5.4.3 Oxygen permeability .....	9
5.5 Specificity.....	10
5.6 Water additives: Compatibility with plastics pipes according to this standard .....	10
6 Marking and information .....	10
6.1 Marking .....	10
6.2 Information .....	10
7 Supply and storage.....	10
<b>Annex A (normative) Determining the barrier layer thickness .....</b>	<b>11</b>
A.1 Specimen preparation .....	11
A.2 Alternative sample preparation.....	11
A.2.1 Embedding.....	11
A.2.2 Grinding and polishing.....	12
A.3 Determining the layer thicknesses.....	12
<b>Annex B (normative) Determining the thermal stability of barrier layer materials using the change in failure strain after ageing in an oven .....</b>	<b>13</b>
B.1 Information on the method.....	13
B.2 Apparatus .....	13
B.3 Specimen preparation .....	13
B.4 Procedure .....	14
<b>Annex C (informative) Testing the compatibility of water additives with pipes according to this standard .....</b>	<b>16</b>
<b>Bibliography.....</b>	<b>17</b>

## Figures

Figure B.1 — $\epsilon_B$ results plotted as a function of the logarithm of time $t$ .....	15
Figure B.2 — Relationship between curves in Figure B.1 established for the exposure temperatures at the 25 % threshold value of $\epsilon_B$ (horizontal line) .....	15

## Tables

Table A.1 — Number of circular segments .....	11
Table B.1 — Specimen thickness.....	14