

External corrosion protection of buried valves
Normal duty coatings

DIN
30 677
Part 1

Äußere Korrosionsschutz von erdverlegten Armaturen. Umhüllung
(Anforderungen) für normale Anforderungen

This standard has been jointly prepared by DIN Deutsches Institut für Normung e.V. and DVGW Deutscher Verein des Gas- und Wasserfaches e.V. (German Gas and Water Engineers Association) and has been adopted into the DVGW Codes of practice on gas and water.

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1 Scope and field of application

This standard specifies requirements for and methods of testing coatings applied to the works in valves for normal duty (N) and intended for use in buried pipework. The valves covered here are suitable for continuous service temperatures of up to 30 °C and are made from the following materials:

- a) flake graphite or spherical graphite cast iron;
- b) unalloyed or low-alloy cast steel;
- c) unalloyed or low-alloy steel.

2 Concepts

The concepts used in this standard are defined in DIN 50 902 Part 1 and DIN 50 929 Part 3.

3 Designation

Valve coating in accordance with this standard (i.e. for normal duty (N) and a service temperature of up to 30 °C (30)) shall be designated:

Coating DIN 30 677 – N – 30

4 Requirements

4.1 Substrate

Immediately prior to application of the coating, the surface of the valve shall be clean (i.e. free from dirt, oil, grease, weld-

ing beads and moisture) and blasted to comply with standard preparation grade Sa 2½ as defined in DIN 53 028 Part 4.

4.2 Coating

4.2.1 Minimum thickness

The minimum coating thickness shall be as specified in the table below.

Table: Minimum coating thickness

Type of substrate	Minimum coating thickness, in µm
Flat, pressure-bearing surfaces	120
Convex edges	80

The coating thickness shall be tested in accordance with subclause 5.3.

4.2.2 Bond strength

When tested in accordance with subclause 5.4, the coating shall correspond to cross-cut quality class G7/A.

4.2.3 Resistance to condensation water

When tested in accordance with subclause 5.5, no rust shall have formed on the coating after ten cycles.

1) Cf. Explanatory notes.

Continued on pages 2 and 3

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