QUADAX®
MADE FOR THE EXTREME

Coating Specifications

Quadax Series Butterfly Valves

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1. Scope

These specifications describe the passive corrosion protection through the external coating of housing elements of QUADAX butterfly valves that do not come into contact with medium. These specifications do not apply to butterfly valves made of rust-resistant materials that are not coated in the standard configuration.

2. Applicable standards

Standards	Description
EN ISO 8501-1,2	Preparation of steel substrates before application of paints and related products — Visual assessment of surface cleanliness
EN ISO 8503	Preparation of steel substrates before application of paints and related products — Surface roughness characteristics of blast-cleaned steel substrates
EN ISO 12944	Paints and varnishes — Corrosion protection of steel structures by protective paint systems
EN ISO 11124	Preparation of steel substrates before application of paints and related products
EN ISO 2808	Paints and varnishes — Determination of film thickness
DIN EN 10204	Iron ores - types of test coatings
EN ISO 2360	Non-conductive coatings on non-magnetic electrically conductive basis materials — Measurement of coating thickness —Amplitude-sensitive eddy -current method
EN ISO 4628	Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance
DIN EN 13463	Non-electrical devices for use in explosive areas
DIN 6164	RAL colour cards, RAL colour card for the 2° standard observer

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3. Preparation

- All soil and loose particles must be removed from the surfaces to be coated.
- The surfaces to be coated must be free from oil and grease.
- The surfaces must be roughened or blasted to be coated.
- Components requiring coating are painted on the fully assembled valve.

4. Covering

The following parts of the valve are coated:

- Body (partially)
- Cover plate incl. screws ₋ gland follower incl. screws

The following need to be covered:

- Flange sealing surfaces on body
- Welding stubs of housing (welding version)
- Shaft including key

Any actuator mounted to the valve is not coated.

5. Coating preparation

- The parts to be coated must be at least 5° above the dew point
- Relative humidity must be below 80%
- The temperature of the parts to be coated must be between10°C and 35°C.

6. Coating

- One-component zinc dust varnish (cover coating material) and conventional atomizing spray are applied to the surface.
- The varnish has a single-layer structure and a minimum dry film thickness of 50 µm ±5µm.

7. Protection of non-coated surfaces

- The coverings of non-coated surfaces must be removed
- Any adhesive residues must be removed
- Non-coated surfaces such as flange sealing surfaces must be protected against corrosion with suitable measures (e.g. greasing) prior to installation.

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8. Final inspection

- A final inspection of the coating of the valves is to be performed on a random-basis.
- The total thickness is to be inspected in line with DIN ISO 2808.
- The total thickness may not be less than 80% of the specified coat thickness at any point.
- The total thickness may not exceed 250% of the specified coat thickness at any point.
- The quality of the surface is to be inspected in line with EN ISO 4628.
- The color must be inspected in line with RAL or DIN 6164.

9. Technical specifications

General description	The coating is designed for corrosion protection for warm and hot steel surfaces, for interior area as sole coating as well as for outdoor weathering in rural, urban and industrial atmospheres.
Min. operating temperature Max. operating temperature	-20°C +500°C
Max. temporary temperature resistance	+600°C
Corrosion class	No official corrosion class
Durability range	5 years (see note 1)
Coating materials	Ferrous materials such as steel and cast steel
Substrate preparation	See specification
Topcoat Topcoat color Topcoat dry film thickness	1 -component zinc dust varnish Pastel blue RAL 5024 50 µm ±5µm
Applicable standards	EN ISO 8501-1, 2,41 EN ISO 8503 / EN ISO 12944 / EN ISO 11124 / EN ISO 2808 / DIN EN 10204 / EN ISO 2360 / EN ISO 4628 / DIN EN 13463 / RAL / DIN 6164

Note 1: The durability range is not a warranty period. Durability is a technical consideration than can help the owner to set up a maintenance program.

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