



## **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          |   |
|--------------------|---|
| EN ISO 8501-1,2 ,4 | 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   |
| RAL                | National Committee for Delivery Conditions Color-Coding   |
| DIN 6164           | DIN color cards, DIN color card for the 2° standard observer  |

## 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.
- If necessary, roughen or blast the surfaces 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 incl. key

Any actuators mounted to the valve are 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 between 10°C and 35°C.

#### **6 Coating**

- One-component silicone resin 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.

#### **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.

## 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

|  |   |
|--|---|
| <b>Description</b>                         | 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. |
| Minimum permissible duration - temperature | -20°C   |
| Maximum permissible duration - temperature | +500°C  |
| Maximum temporary permissible temperature  | +600°C  |
| Corrosion class                            | No official corrosion class   |
| Expected duration of corrosion protection  | 5 years (no liability)  |
| Materials for coating                      | Ferrous materials such as steel and cast steel  |
| Pretreatment of surface                    | See specification   |
| Topcoat                                    | 1-component silicon-resin varnish   |
| Topcoat color                              | Silver ( Alu ) matt   |
| Topcoat dry film thickness                 | 50 µm   |
| Applicable standards                       | EN ISO 8501-1, 2 ,4 / 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  |