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DATA SHEET ENV 102 – Powder coating

Substrate material: **ALUMINIUM** mill finished (aluminum profiles, aluminum sheets, aluminum constructions)

Component measurements: larger l = 7,000 x w = 1,000 x h = 2,000 mm
 up to l = 13,600 x w = 2,500 x h = 4,000 mm
 up to l = 17,500 x w = 1,000 x h = 2,000 mm
 (in hung condition)

Exterior and interior application

(for smaller parts see data sheet ENV 101)

Component weight: up to 3,000 kg

Process: Pre-treatment and powder coating

Product description: Surface pre-treatment and surface coating on a lead-, chromium-, cadmium- and solvent-free basis in facade quality

Properties: The powder coating is tested and approved by the "Gütegemeinschaft für Stückgutbeschichtung".

- Highest weather resistance
- Best mechanical properties
- Good flow
- Chromium-, lead-, cadmium- and solvent-free

Application: Coating of aluminum profiles, aluminum sheets and aluminum constructions for interior and exterior application

Process restrictions: Cavities and concealed areas (e.g. doublings) cannot be protected.

When producing the parts, it is necessary to ensure that machining fluids and greases (especially around non-visible areas, unavoidable doublings, blind holes, threads, etc.) are removed, as these cannot be completely cleaned off by the sweeping/fine blasting process and therefore have a negative effect on the powder coating layer and durability during the curing process.

Color tones:

- Approx. 180 RAL colors (smooth glossy, smooth satin finish, smooth matt, (coarse) textured glossy)
- Standard RAL colors also available as ENV Antimicrobial
- Metallic, approx. P-tones, approx. DB metallic
- Pearlescent mica metallic
- Special color tones NCS; Sikkens or according to color samples
- Effect powder coatings: ENVnatuRAL Design, ENVtransparent, etc.

Process description:

- Sweeping (compare data sheet ENV 700)
- Mechanical cleaning (removal of dust, degreasing)
- Annealing
- ENVIRAL curing primer/chromating substitute primer (for exterior application)
- Powder coating
- Curing

Notes: **Residues of blasting media in component cavities are to be expected! These cannot be completely removed. - Please take this into account when further processing and completing your components (e.g. protection of mechanical/movable built-in parts).**

Assessment of the surface: The finished coated surface is assessed in accordance with the Association of Window and Facade Manufacturers (Verband der Fenster- und Fassadenhersteller e.V.), VFF leaflet AL.02, status August 2016 (Visual assessment of organically coated aluminum surfaces) and delivered in this quality. Requirements going beyond this, including standard requirements or requirements of performance specifications, are only valid if they have been explicitly confirmed in writing by ENVIRAL®.

Suspension: According to our suspension recommendations (compare data sheet ENV 800)

Quality assurance: Continuing process control and order-specific quality assurance, destructive and non-destructive

Packaging: Noppa foam, air cushion film

- Repair:** According to our repair recommendations (compare data sheet ENV 802)
- Cleaning:** According to our cleaning recommendations (compare data sheet ENV 801)
- Sealant adhesion:** According to sealant adhesion on powder-coated surfaces of facades (compare data sheet ENV 803)
- Approvals:** Environmental Product Declaration according to ISO 14025 and EN 15804:
EPD-VDL-20160263-IAG1-EN: Polyester powder coating
EPD-VDL-20160264-IAG1-EN: Epoxy powder coating
EPD-VDL-20160265-IAG1-EN: Hybrid powder coating
EPD-GDA-20190070-IBH1-EN: Aluminum profile coated
- For this process exists a product qualification according to DBS 918 340 of Deutsche Bahn AG.