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## DATA SHEET

## ENV 304 – Powder coating

### Substrate material:

**STEEL** galvanized

### 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 application

(for smaller parts see data sheet ENV 303)

### Component weight:

up to 3,000 kg

### Process:

Sweeping/fine blasting, ENVIRAL<sup>®</sup> curing primer and powder coating

### Product description:

Surface pre-treatment and surface coating on a lead-, chromium-, cadmium- and solvent-free basis

### Properties:

Pre-treatment chemistry and powder coating are 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 galvanized steel profiles, steel sheets and steel constructions for exterior application

- Process restrictions:** Cavities, sharp edges and concealed areas (e.g. doublings) cannot be protected.  
Galvanized surfaces must be in perfect condition and have a coatable surface, in other words free of zinc corrosion, water-soluble salts, passivation, zinc sprays, zinc pastes or similar separation layers. Nevertheless, outgassing and bubble formation may occur due to the thermal treatment after coating.
- 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.
- Due to sweeping/fine blasting, finest pinhole-like surface inclusions can occur in the powder-coated surface. This effect can be avoided by double coating. A separate order is necessary.
- In deviation from the DIN 55633 standard, **no** optical improvement of the zinc coating (no removal of thickenings and irregularities in the zinc coating) is carried out by ENVIRAL® before powder coating of galvanized surfaces. This is a chargeable additional service that requires an agreement and a separate written order by the customer.
- 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 / fine blasting (compare with data sheet ENV 700)
  - ENVIRAL® curing primer
  - Curing
  - 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).**

<b>Assessment of the surface:</b>	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 ST.02, status August 2016 (Visual assessment of organically coated surfaces on steel) and delivered in this quality. Additional requirements, including standard requirements or requirements of service specifications, are only valid if they have been explicitly confirmed in writing by ENVIRAL®.
<b>Suspension:</b>	According to our suspension recommendations (compare data sheet ENV 800)
<b>Quality assurance:</b>	Continuing process control and order-specific quality assurance, destructive and non-destructive
<b>Packaging:</b>	Noppa foam, air cushion film
<b>Repair:</b>	According to our repair recommendations (compare data sheet ENV 802)
<b>Cleaning:</b>	According to our cleaning recommendations (compare data sheet ENV 801)
<b>Sealant adhesion:</b>	According to sealant adhesion on powder-coated surfaces of facades (compare data sheet ENV 803)
<b>Approvals:</b>	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