

## Powder Coatings Glossary

<http://glossary-of-terms.ru/?do=g&v=438>

| <b>Английский</b>  |  |
|--|--|
| <b>adhesion water dryer</b><br>Furnace for drying of the workpieces after pre-treatment  |  |
| <b>adhesive strength</b><br>Describes the adherence of one material to another; during coating, the adhesion of the powder coating to the substrate  |  |
| <b>blisters</b><br>Sealed elevation in the powder coating film caused by outgassing  |  |
| <b>buchholz hardness</b><br>Standardized test method for measuring surface hardness in accordance with din en iso 2815   |  |
| <b>cloud formation</b><br>Local cloud-like irregularities in the effect formation in metallic powder coatings  |  |
| <b>coating thickness/density</b><br>Measurable thickness of the coating on the substrate   |  |
| <b>color change</b><br>Cleaning of the entire coating plant to allow subsequent coating with a different color   |  |
| <b>color deviation</b><br>Difference in shade between sample and component or between different components   |  |
| <b>color standard</b><br>Color shade as standardized by institutions (ral, ncs, pantone, etc.)   |  |
| <b>color/shade</b><br>Perceived color due to incident light with different wavelengths   |  |
| <b>conveying air</b><br>Supply air in the injector that is used to regulate the powder quantity; in plants with total air control it is regulated automatically depending on the set powder quantity |  |
| <b>conveyor/conveyor chain</b><br>System that moves the component or the suspension trolley through the coating system   |  |
| <b>de-aeration additive</b><br>Powder additive used to avoid blisters or similar on exhalating substrates  |  |
| <b>deburring</b><br>Rounding of cut edges with a minimum radius of 2 mm  |  |
| <b>dip pre-treatment</b><br>Chemical pre-treatment method in which the parts are immersed in a bath filled with chemicals  |  |
| <b>dosing air</b><br>Supply air in the injector for regulation and homogenization of the powder feeding in the powder hose; this is regulated automatically in plants with total air control         |  |
| <b>downward trickling</b><br>Powder trickles/falls in small quantities from the workpiece; no laminar detachment occurs  |  |
| <b>duroplast</b><br>Plastic or coating that cannot be deformed again after cross-linking, even at high temperatures  |  |
| <b>dw rinsing</b><br>Rinsing with demineralized water (conductivity max. 20 us/cm) during pre-treatment  |  |

|  |  |
|--|--|
| <p><b>edge loss</b><br/>Withdrawal of the powder from the edges during melting; insufficient coating thickness at the edges</p>  |  |
| <p><b>edge structure</b><br/>Accumulation of powder on the outer edges of the workpieces</p>   |  |
| <p><b>end filter</b><br/>Fine filter for particles that were not separated by the cyclone</p>  |  |
| <p><b>etching slurries</b><br/>Slurries produced by the etching process</p>  |  |
| <p><b>faraday cage</b><br/>Electrostatic phenomenon that makes coating in cavities and inner edges difficult</p>   |  |
| <p><b>filiform corrosion</b><br/>Thread-like corrosion of aluminum; especially prevalent on damaged areas of the coated surface or cut edges in the presence of air with a high salt content</p> |  |
| <p><b>fine fraction</b><br/>Proportion of fine powder grains (&lt;10µm) in the powder coating</p>  |  |
| <p><b>fluidizing</b><br/>The powder is brought into a "liquid/suspended" state by means of compressed air</p>  |  |
| <p><b>fluidizing bed</b><br/>A container that has a fluidizing membrane at the bottom, through which the fluidizing air can flow into the container or powder</p>                                |  |
| <p><b>formation of droplets</b><br/>During melting, the powder coating runs off the edges of the workpiece in the form of droplets</p>   |  |
| <p><b>fresh water rinsing</b><br/>Rinsing cycle with fresh tap water to remove chemical residues during pre-treatment</p>  |  |
| <p><b>grain distribution/grain spectrum</b><br/>Indicates the ratio between the sizes of the individual powder grains</p>  |  |
| <p><b>gray film</b><br/>Optically visible decomposition products or deposits on the cured powder coating film, which can be wiped away</p>   |  |
| <p><b>hangers</b><br/>Frame, rod or rail for suspension of the workpiece to be processed</p>   |  |
| <p><b>heating rate</b><br/>The time in which the workpiece is heated in the furnace from the ambient temperature to the required object temperature</p>  |  |
| <p><b>high-voltage blowback</b><br/>Star-shaped defects in the uncured powder coating due to a lack of grounding</p>   |  |
| <p><b>inter-coat adhesion</b><br/>Adhesion between two coating layers in a multilayer structure</p>  |  |
| <p><b>lumps</b><br/>Solid lumps of powder, which may be caused by pressure, temperature or vibration</p>   |  |
| <p><b>material thickness</b><br/>Thickness of the substrate to be coated</p>   |  |
| <p><b>metallic effects</b><br/>Powder coatings with added metallic pigments</p>  |  |
| <p><b>metallic pigments</b><br/>Effect pigments added to the powder coating to achieve special surface characteristics: mica, chrome effects, etc.</p>   |  |

|   |  |
|---|--|
| <p><b>needlesticks</b><br/>Fine-pored impairment of the cured powder coating due to outgassing or overcharge effects</p>  |  |
| <p><b>object temperature</b><br/>Temperature that the component must reach in the furnace to ensure proper curing; the retention time starts when this temperature is reached</p> |  |
| <p><b>orange peel skin</b><br/>Visible, wave-shaped interference pattern on the coated surface</p>  |  |
| <p><b>oven graph</b><br/>Recording of the temperature curve in the furnace</p>  |  |
| <p><b>over-curing</b><br/>Curing of the workpiece in the furnace at an excessively high temperature or for an excessively long retention time</p>                                 |  |
| <p><b>overspray</b><br/>Excess powder paint that is sprayed but did not adhere to the workpiece during the coating process</p>  |  |
| <p><b>oversize particles</b><br/>Powder particles that are larger than the desired grain spectrum and are screened out</p>  |  |
| <p><b>oxide layer</b><br/>Sealed corrosion layer on a metallic substrate</p>  |  |
| <p><b>penetration behavior</b><br/>Describes the penetration of the coating powder into inner edges, cavities and recesses during the coating process</p>                         |  |
| <p><b>picture frame effect</b><br/>Visible surface deviation (gloss, flow, structure formation) around the edges of a component</p>   |  |
| <p><b>powder center</b><br/>Component of the fresh-powder feeding system, which includes the powder/fluid container and the injectors</p>   |  |
| <p><b>powder circuit</b><br/>Powder that is not deposited on the workpiece is collected and conveyed back into the powder container to be resprayed</p>                           |  |
| <p><b>powder feeding</b><br/>Transport of the powder from the container to the pistol or from the recycling system back into the container</p>                                    |  |
| <p><b>powder hose</b><br/>Hose through which the powder-air mixture is transported from the injector to the coating pistol</p>  |  |
| <p><b>powder puffs</b><br/>Powder lumps on the coating layer, caused by deposits that have come loose from the spray nozzle</p>   | <p>spitting<br/>See powder puffs</p>   |
| <p><b>pre-anodizing</b><br/>See anodizing</p>   | <p>anodizing<br/>1. Анодирование<br/>2. Anodized oxidation of the aluminum substrate, similar to the anodizing process but without compression; for optimal corrosion protection</p> |
| <p><b>pre-treatment</b><br/>(chemical or mechanical) cleaning and passivation of the substrate</p>  |  |
| <p><b>purge air</b><br/>Air used to clean the electrode in flat spray nozzles and the baffle plate in baffle-plate nozzles</p>  |  |
| <p><b>residual powder</b><br/>Powder residues from recycling, prolonged storage, etc. that are no longer usable for the coating process</p>                                       |  |

|  |  |
|--|--|
| <b>resistance to ground</b><br>Describes the measured resistance between the workpiece surface and the ground connection   |  |
| <b>reversal point</b><br>Turning point of automatic pistols during the up and down movement  |  |
| <b>sanded area</b><br>Visible impairment of the paint film due to mechanical pre-treatment of the substrate, e.g. sanding  |  |
| <b>screen/screening machine</b><br>System used to sieve the powder coating; also possible with ultrasound  |  |
| <b>separating agents</b><br>An agent used in the production of injection-molded parts to prevent sticking in the mold  |  |
| <b>sine wave pattern</b><br>Pre-configured movement of the coating pistols over the component in accordance with the conveyor speed, pistol spacing and stroke speed |  |
| <b>solvent resistance</b><br>Imperviousness of the cured powder coating to changes caused by applied solvents  |  |
| <b>specks</b><br>Inclusion of visible, non-meltable dirt particles in the powder coating   |  |
| <b>spitting</b><br>See powder puffs  | powder puffs<br>Powder lumps on the coating layer, caused by deposits that have come loose from the spray nozzle |
| <b>spray pre-treatment</b><br>Chemical pre-treatment in which the chemicals are applied by spraying  |  |
| <b>streaking</b><br>Elongated irregularities in the coating thickness or the effect appearance of metallic powder coatings   |  |
| <b>surface impairment</b><br>Visible defects in the powder coating   |  |
| <b>susceptibility to scratches</b><br>Inability of the powder coating to withstand friction or scratches   |  |
| <b>sweep blasting</b><br>Special, gentle blasting process for galvanized substrates  |  |
| <b>thermo-plastic</b><br>Deformable plastic or coating that becomes soft again at high temperatures  |  |
| <b>transport adhesion</b><br>Adhesion of the powder to the substrate before curing   |  |
| <b>triboelectric charging</b><br>Powder particles are positively charged by friction on teflon (ptfe)  |  |
| <b>welding point</b><br>Defect visible through the paint film due to welding of the substrate  |  |

## Глоссарии бюро переводов Фларус

<http://glossary-of-terms.ru/>