

CONICA – Glossary – Definitions and Abbreviation

The following list contains explanations of terms and abbreviations used in our technical product and system data sheets as well as in other technical documentation. In this case, completeness cannot be guaranteed. If terms and abbreviations are not explained here, please contact our technical service.

1 comp., 2 comp., ...comp. coating	Abbreviation for one-, two-or multi-component coating materials
AB = antibacterial	Abbreviation for antibacterial
Abrasion	Abrasion occurs when solid bodies are moved against each other; e.g. by braking or driving with wheels and rolls on coating systems
Abrasion resistance	A surface resistance to mechanical stress.
Adhesion promoter	Adhesion promoters are usually applied in a very thin layer to produce a sufficient connection between different materials and our coating materials.
AgBB	Committee for the health assessment of construction products. The "AgBB" developed an evaluation scheme for the health assessment of the emission of volatile organic compounds from building products that are used indoor.
AS = antistatic	Abbreviation for antistatic (see also conductivity)
bacteriostatic	Inhibit the growth of bacteria
Carbamate (white discoloration)	Side reaction in epoxy coating materials by application of the coating material by achieving the dew point or caused by a reaction with CO ₂ and water from the surrounding air (dew point) or by weathering. The carbamate formation is manifested by whitish discoloration on the surface that must be removed what is mandatory for primers and intermediate layers because consequential damages cannot be excluded.
CE marking	The CE marking is a marking in accordance with EU law for certain products in connection with product safety. By affixing the CE marking, the manufacturer confirms that the product complies with the applicable European Directives. Products that due to their nature or structure of EU directives can be applied must be provided with the CE mark before they can be marketed and put into service.
Chemical resistance	Resistance of a coating system until destruction by exposure of media such as solvents, acids, alkalis etc.
CM-device / CM measurement	With the CM device, the residual moisture in concrete and screeds can be determined: The procedure is described in the Annex to DIN EN 1504-10, RILI SIB and ZTV ING. CM measurement is by calcium carbide method defined.

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Colour stability / colour stable	<p>The colour stability of a coating resin or sealing lacquer depends on various factors, which can be divided into essentially two types: Type of binder: aliphatic or aromatic polyurethane resins or epoxy resins and the substances contained therein, such as additives, pigments and fillers. Here, aliphatic polyurethane resins have the highest colour shade stability. Environmental conditions or type of use: The environmental conditions include the weather conditions such as UV radiation, precipitation, and pollution by e.g. industrial climate but also other influences that are exposed to the coating after curing. Natural aging processes also cause colour changes.</p>
Compressive strength	<p>In the compression test determined material parameter for the resistance to compressive forces; defined as the ratio of the fracture inducing F_{max} maximum load and the initial cross section of the sample rod (not determined on the system, but on a prism) e.g. on a mortar prism 4 cm x 4 cm x 15 cm</p>
Conductivity	<p>The conductivity names the properties of dissipating electrical energy. The resistance of the material, which is measured in ohms (Ω), determines the extent to which this happens. Floors should have a low resistance on the one hand; that no electrostatic charge is created, on the other hand, a certain value must not be exceeded in order to avoid dangerous power lines through the human body in contact with a voltage source. As a guideline, a resistance of $<1 \text{ Mega ohm} = 10^6 \Omega$ is defined. Measured according to EN 1081 for explosion protection (ATEX) or for ESD protection in the electronics industry in accordance with EN 61340-5-1. The limits for the explosion protection are in the BGR 132 (BG rules for health and safety at work) or in the ATEX directive. For the electronic industry there are special values defined in the DIN EN 61340-5-1 (see EPA and ESD).</p>
Conductive layer / conductive primer	<p>The conductive layer is an intermediate layer, which derives the electric charge in the floor covering system to the potential equalization (earth point). The connection of the conductive layer to the potential equalization is done by a copper strip.</p>
Core hole	<p>With a core hole, implementation by using a core drill, a part in a diameter of e.g. 50 to 100 mm is drilled out of concrete or other substrates. The shape of the core hole part is cylindrical. At this cylinder the compressive strength or the structure (pores, aggregates), the carbonation and chloride content of concrete can be determined. In addition, the layer thickness of coatings can be determined.</p>
Crack bridging properties	<p>The ability of a coating to bridge cracks in the supporting surface caused by dynamic or static stress. Static crack bridging: Class A Dynamic crack bridging: Class B</p>
Curing / hardening	<p>Complete transition of the binder from the liquid to the solid state</p>
DAfStb	<p>Abbreviation for "Deutscher Ausschuss für Stahlbeton" = German Committee for Reinforced Concrete</p>
De-icing salt	<p>De-Icing products used mainly on roads, and therefore also in the bridge area and car park area to reduce ice and snow for safety. De-icing salts are chlorides and can enter through fine cracks and the capillary pores of the concrete into the structure. When the salt reaches the steel reinforcement, the steel starts to corrode (chlorides). When concrete repair must be done, the chloride-contaminated surfaces should be completely removed and repaired.</p>

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Density	Density (symbol: ρ ; abbreviation: D.) of a single substance is defined as the mass per volume unit, that means the contained mass in 1 cm ³ (or 1 l) in grams (or kg). E.g. water 0.998 g / 1 cm ³ (kg / l).						
Dew point temperature	Temperature at which the air is saturated with water vapour. When the air is cooled down to the dew point a condensation of water vapour occurs, for example, if warm air meets cold components (floors) (see dew point).						
Document of performance (DoP)	The declaration of performance shall explain the performance of construction products in relation to the essential characteristics of these products in accordance with the relevant harmonized European technical specifications (Art. 6 para. 1 BauPVO). A declaration of performance is only necessary if a construction product corresponds to a (European) harmonized standard or is covered by a European Technical Assessment (Art. 4 BauPVO). Generic term for harmonized standards and European Technical Assessment is the harmonized technical specification.						
EP	Abbreviation for epoxy resin. An epoxy resin consisting of polymers (polyethers), which produce a plastic of high strength, and chemical resistance, depending on the reaction, with the addition of appropriate hardeners.						
EPA	Electrostatic Protected Area. Electrostatic charges, often caused by static electricity, must be prevented by means of anti-static equipment in this "ESD workstation". According to the current ESD standards, for ESD protection zones the maximum permissible electrostatic charges according to the human body model are given as 100V. This protects against electrostatic discharge (ESD), which can damage or destroy sensitive electronic components. (see also ESD)						
ESD	Electrostatic discharge (ESD) is a spark or breakdown resulting from a large potential difference, which causes a short, high electric voltage pulse on an electrical device. Under unfavourable circumstances, this voltage pulse in the device can damage electrical components. This particularly affects field effect transistors. Another undesirable consequence may be the uncontrolled ignition of combustible gas. Cause of the potential difference is usually a charge by friction electricity (triboelectric effect) or influence. Frictional electricity occurs z. B. also when running on a carpet or on non-conductive coatings and plastic coverings, with a person can be charged up to about 30,000 V. For ESD / EPA workplaces, EN 61340-5-1 is applied and the included standards EN 61340-4-1 and 4-5 for floors if they are the main measure in an EPA: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Earth leakage resistance</td> <td style="width: 50%;">Rg: $\leq 10^9 \Omega$ EN 61340-4-1</td> </tr> <tr> <td>System resistance</td> <td>Rs: $\leq 3.5 \times 10^7 \Omega$ EN 61340-4-5 (person –footwear - floor)</td> </tr> <tr> <td>Body charge</td> <td><100 V EN 61340-4-5 (Walking test)</td> </tr> </table>	Earth leakage resistance	Rg: $\leq 10^9 \Omega$ EN 61340-4-1	System resistance	Rs: $\leq 3.5 \times 10^7 \Omega$ EN 61340-4-5 (person –footwear - floor)	Body charge	<100 V EN 61340-4-5 (Walking test)
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Body charge	<100 V EN 61340-4-5 (Walking test)						
Egalisations / levelling layer	Intermediate layer for levelling or equalisation of uneven surfaces. Can be used as unfilled or with quartz sand or fillers filled products.						

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Filler	Fillers are often mineral constituents (for example, quartz flour, barite), which are added to the coating material at the factory or, depending on the application (layer thickness), are added to the coating materials on site. It is important here that fillers are generally added to the synthetic resins in as fire- or oven-dried quality are added. Examples of fillers are: quartz sands, granite and hard materials, silicon carbide, etc.
Filling grade / filling ratio	Describes the amount ratio, e.g. as in an epoxy resin to the aggregates of silica sand, in parts by weight. So, for example, means 1:3, that a part by weight of epoxy resin is composed of three parts by weight of quartz sand to a mixture. The filling can also be expressed in % per weight.
Fire behaviour / fire resistance	Determined in the fire test performance of building materials and building designs (e.g. EN 13501-1 for flooring systems)
Flexural strength	This signifies the bending stress in the compression zone or in the tension zone, until the first cracks can result in a bending stressed component. Is determined by the bending test. Unit: N / mm ²
Fresh concrete	Fresh applied concrete, unconsolidated
GIS Code	GIS = Hazardous Materials Information System - GISCODE's / product codes based on the idea, to take products with comparable health hazard and therefore identical protection measures and behaviour rules, into groups. The code themselves, which are on the manufacturer's information (safety data sheets, technical data sheets) and applied on the container labels, assigns the used product uniquely to a product group. To obtain a specific product information, first select from a list of the corresponding area. Then have a look in the table for the required detailed information of dangerous substances. The list of codes can be found on the website of the trade association in the construction industry. (http://www.gisbau.de/index.html).
Glass transition temperature	The glass transition temperature or softening temperature (TG) is the temperature at which for example a plastic material has the greatest change in the deformation ability. This so-called glass transition separates the below lying brittle region (= glass area) from above lying soft area (= rubber elastic range).
Green concrete / young concrete	Ready built fresh concrete immediately after the compression and before hardening. A rupture strength (basic strength) to commit is given.
Hygrometer	Humidity meter to determine the relative air humidity in %. Important to monitor the construction work and to determine the dew point.
ISO 14001	The international environmental management standard ISO 14001 sets world-recognized requirements for an environmental management system and is part of a family of standards. This standard contains numerous other standards governing various aspects of environmental management, including life cycle assessments, environmental indicators and environmental performance evaluation. It can be applied to both manufacturing as well as service companies.

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ISO 9001	<p>EN ISO 9001 specifies the minimum requirements for a quality management system (QM system), which must be fulfilled from an organization, in order to provide products and services which meet customer expectations as well as any regulatory requirements. At the same time, the management system should be subject to a process of continuous improvement.</p> <p>The eight principles of quality management are:</p> <ol style="list-style-type: none"> 1. Customer orientation 2. Responsibility of the management 3. Comprehension of the involved people 4. Process oriented approach 5. System oriented management approach 6. Continuous improvement process 7. Issue-related decision-making approach 8. Supplier relationship for mutual benefit
Kelvin (3 K)	<p>Unit of measurement for temperature. The scale of the display is identical to the degree Celsius classification. The zero point scale is the absolute zero at about minus 273 degrees Celsius. At Kelvin, no minus grades are defined. Temperature differences are usually specified in Kelvin (K), e.g. 3 K above dew point</p>
Levelling layer	<p>Intermediate layer for levelling or equalization of uneven surfaces. Can be used as unfilled or with quartz sand or fillers filled products.</p>
Low solvent content	<p>Coating whose binder is diluted with max. 5% volatile organic solvents (according to TRGS 610) (includes VOC).</p>
Lunker (shrinking hole)	<p>Small cavities with a few millimetres in diameter (usually air bubbles) that occur in the formwork when pouring the concrete. Mostly these cavities are covered on the concrete surface with a thin cement paste and only by a mechanical treatment of concrete surfaces (e.g. sandblasting) visible.</p>
Lunker / scratch coat	<p>Levelling or planar closure of cavities without the significantly change of the concrete surface. Mostly PCC fine putty may be applied. Thixotropic epoxy fillers may also be used.</p>
Magnesite screed	<p>Mixture of magnesium oxide, magnesium chloride, and additives such as sawdust or sooner asbestos fibres. Steel parts, which are surrounded or contacted by magnesite screeds, will rust (rust-promoting substances). In the coating of magnesite, special measures must be taken.</p>
Mechanical load	<p>Low mechanical load: for example pedestrian traffic, office chairs Medium mechanical load: for example pallet trucks <1,000 kg High mechanical load: heavy load, e.g. fork lift trucks, pallet trucks high traffic</p>
Mixing ratio	<p>Ratio in two- and multi-component coating materials and mortars, in which the ratio of the components is usually indicated in parts by weight. (see also the degree of filling)</p>

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Moisture content / residual moisture content	<p>When using synthetic resin coatings, the moisture content or the residual moisture in the substrate has a significant influence on the quality or durability of the coatings. The moisture content (residual moisture) is determined as a percentage by weight of water in the subsurface. When applying the coating, the following guidelines apply: Max. 4% by weight for cementitious substrates, max. 8% by weight of magnesite bonded substrates, max. 0.5 - 1.0 % by weight in anhydride or calcium sulphate screeds, otherwise damage may occur by using coatings or other flooring systems. The measurement of moisture in the concrete can be carried out with a CM device or by means of electrical resistance measurement (orientation test). The most accurate method is the "Darr method", which is carried out as a laboratory measurement. For underfloor heating, special values apply and special measures have to be taken.</p>
Newton (N)	<p>International unit in physics for the force (symbol = N). A Newton is thus at an average gravity acceleration at sea level of $g = 9.81 \text{ m / s}$ the weight of a body of mass 102 g. (Named after the physicist Isaac Newton)</p>
Osmosis	<p>An in practice sometimes observed damage is blistering under or in coatings due to osmotic processes. Osmosis is the passage of a fluid (e.g. water) through a semi-permeable membrane (e.g. as with quartz sand broadcasted primer), when on both sides of the membrane, different concentrations (e.g. of salt particles, solvent products) of a soluble substance are present. Here it leads to the passage of the liquid in the direction of the concentrated solution (which will be diluted to a certain extent). This takes place to an inner pressure increase, associated with the occurrence of liquid-filled bubbles, e.g. between base material and coating or between primer and coating (also called osmotic pressure)</p>
Over coating / Re-coating interval	<p>Opportunity for applying coatings to existing layers with sufficient bond strength and sufficient hardness to accessibility or for re-coating, the waiting time for the layer before to cure until the next layer can be applied.</p>
Polyuria (PUA)	<p>Polyuria or polyuria's are polymers resulting from the poly addition of isocyanates and amines. The polymer has a structural element similar to that of urea. Structurally, they are among the aminoplast</p>
Polyurethane (PUR)	<p>Polyurethanes are plastics or synthetic resins resulting from the poly addition of diols or polyols with poly isocyanates.</p>
Primer	<p>Primers are usually low-viscosity and filler-free reaction resins. For floor coatings, in most cases epoxy based primers are used to insure the adhesion e.g. between the concrete substrate and a subsequent epoxy or polyurethane resin system because they have higher moisture tolerance and resistance to the alkaline cement.</p>
Quartz sand / quartz powder / flour (QS / QM)	<p>Mineral aggregates for sprinkling the surface (broadcasting) and filling of coatings. Quartz sands are supplied in different grading curves and have a light grey to light brown (beige) base colour, depending on the mining region. Quartz sands are used for coatings only in fire- or oven-dried form. Depending on the basic shade, this may also have an influence on the colour tones of coatings.</p>
Rising water / rear moisture exposure	<p>This effect may occur if rising water is available e.g. due to a lack of damp proof membrane below the concrete slab or as excess mixing water in concrete. When this effect occurs, a specific blocking primer or special water vapour permeable coatings must be used.</p>

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"Re-potting"	For two-component or multi-component synthetic resins, the homogeneous mixing of the material must be taken into account. In general, component B (hardener) is poured into the container of component A (resin) and mixing is started. When mixing remains on the container walls and the bottom of the box unmixed material. To avoid unmixed material leaking out and spreading onto the surface, pour the mixture completely into another clean container (repot) and mix again briefly to avoid mixing errors.
Residual moisture	Concretes and various screeds as well as wood always have a certain residual or equilibrium moisture content. The residual moisture should in cementitious substrates not exceed 4 CM%. For other substrates and higher residual moisture content, please consult technical service of the material manufacturer.
Sand broadcasting / sand strewing	The broadcasting with oven dried quartz sand or other aggregate of the coatings is defined state for primers to improve the adhesion between layers or in excess to produce slip resistant surfaces. It should be ensured, that in reactive resin based layers only fire or oven dried quartz sands and aggregates are used.
Scratch coat	Scratch coat refers to with mineral aggregates filled epoxy or polyurethane resin layer for levelling of rough surfaces to obtain a flat surface for subsequent coating. The layer is only "scratched" on the surface.
Sealing lacquer / sealer (top coat)	Sealing lacquers or top coats are applied as a thin-layer protective coating for screeds and concrete slabs and other substrates or are applied as the final layer in a coating system and is mainly decisive for the optical and colour appearance. On broadcasted coatings, they are also called as topcoat.
Shot blasting	Shot blasting (also "Blastrac") is an effective and economical method to prepare preferably horizontal surfaces. Small steel balls are thrown with a spinning wheel on the concrete surface, absorbed, and recycled again during the return with the removed concrete dust (separation of the steel balls from the ablated material).
Slip resistance / non slip	Resistance of a floor against the slipping of persons when walking on the surfaces. The examination and evaluation of the anti-slip property of floor coverings is tested in Germany using the walk-through procedure on an inclined test surface. Mandatory are the lubricant and footwear of the subjects. The anti-slip property is assessed depending on the angle of inclination by 5 evaluation groups R 9 to R 13 or specified in a sliding coefficient resistance value, which can be determined with special testing equipment on the project.
Solvents	Solvents or thinners abate the viscosity of the synthetic resin systems. In thick-film applications solvents are suitable as they cannot evaporate or only slowly and cause bubbles in the coating. Solvents are highly volatile liquids that can be components of certain resin systems, e.g. alcohols, hydrocarbons. In general, solvent do not improve the penetration of resins into porous surfaces because the molecular structure of the resin is not reduced!
Solvent free	Coating whose binder is solvent-free (without solvent) in which a minimum solvent content less than 0.5% can result from impurities. see also "total solid"
Solvent borne / solvent based	Coating whose binder is diluted with max. 10% volatile organic solvents (includes VOC).
Strong solvent based	Coating whose binder is diluted with more than 10% volatile organic solvents (includes VOC).

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Standard colours	Standard colors are defined colours within the delivery program, which are listed in the price group 1. (See colour list in the annual price list). Depending on the pigmentation and colour, the shades are divided into different price categories / price groups.
Storage stability / best before date	Period after production, in which a properly stored coating product may be minimum used while maintaining its functional properties.
Substrate pre-treatment / substrate preparation	When coatings should be applied, substrates previously a surface preparation is mandatory to remove fats, oils, cement slurries or steel to rust. As surface preparation, methods are known; for example, sand blasting, shot blasting, milling, and grinding, scarfing and wet blasting (mechanical cleaning).
Surface hardness	Resistance against impression of the coating, for example determined with a loaded steel ball.
Synthetic resin	Liquid synthetic resin, which cures by chemical reaction.
Tensile adhesion strength	Liability of two successive layers e.g. coating on primer or primer on the substrate. The bond strength is measured with special pull-off strength device with defined test stamps. According to ZTV-ING and EN 1504-2, this value must on average at least. 1.5 N / mm ² .
Thixotropic	The term thixotropic describes the very widespread phenomenon that liquefy gels upon application of a shear stress (z. B. the stirring or shaking). After the end of this action, they solidify again. Its viscosity therefore changes. Coatings can be produced as thixotropic liquids. The best-known example of a thixotropic liquid is ketchup. (see also thixotropic agent)
Thixotropic agent	Aggregate, which is added to thicken the coating materials, that it can be applied on vertical or inclined surfaces without draining.
TRGS	Technical rules for hazards and dangerous goods
Top coat	Topcoat is the seal coat on textured or broadcasted surfaces.
Total Solid	Epoxy resin with a mass loss I < 1 % or with a mass loss II < 2% in accordance with DIN 16945 (recommendation of Deutsche Bauchemie eV, formerly called solvent-free)
UV-resistant / UV stable	Coating material, which have no or only minor changes in the characteristics (colour, abrasion ...) under the influence of UV radiation are called UV-resistant. However, substances that have discoloration but not chalking under UV influence can be also UV resistant.
Viscosity	The viscosity is a measure of the viscosity of a liquid. The greater the viscosity, the thicker (less fluid) is the liquid; the lower the viscosity, the thinner (more fluid) is the liquid. The unit is specified in mPas. Higher temperatures reduce the viscosity, lower temperatures increase the viscosity and the consumption values can change.

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Water vapour permeability	When molecules of a gaseous substance penetrate into another substance, this is referred to diffusion. Vapour diffusion is referred as the diffusion of water vapour.
Water based / water borne coatings	Coatings whose processing consistency is adjusted by means of water and if necessary can be diluted further with water.
WHG	Water Resources Act; a German legal text on the regulation of water balance. For coatings is § 62 "systems for handling water-polluting substances" of importance. Facilities for storing, filling, manufacturing and handling of water-polluting substances and equipment for use of water-polluting substances in the field of trade and industry and in the field of public institutions must be so designed and installed in such a set-up, be maintained and operated that water pollution and groundwater or any other detrimental change in their properties is to be feared. Coating systems with WHG approval (water protection coatings) are suitable in this case
White discoloration (Carbamate)	see carbamate.
Working temperature	Temperature range or minimum temperature, which must be maintained during the processing of a substance on the building and in the environment (air temperature, ambient temperature, material temperature). The information on this will be specifically stated in the respective product data sheets or on the label on the pails.
Working time / pot life	From ambient temperature and mixed quantity (container) depending time within which a coating material has a processing consistency.