VIACOR Glossar

1 comp., 2 comp., …comp. coating	Abbreviation for one-, two-or multi-component coating
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, usually very thin layer applied to the production of a sufficient connection between different materials and 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
Bonding agent	Connection layer between hardened concrete / screed and mineral coating material to be applied from hydraulically setting mortar. A bonding agent can be produced with cementitious bonding slurry or water-emulsified with special resin.
Carbamate (white discoloration)	Side reaction in EP-coating materials by non-professional application of the coating material by a reaction with CO2 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 mandatory for primers and intermediate layers because consequential damages can't 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	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.

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Colour stability / colour stable	The colour stability of a coating or a sealer depends on various factors, which can be divided into two groups: Once the coating material itself, on the other hand by the environmental conditions or the stress of the coating. By the coating material, the type and amount of binder type and amount of pigments and fillers, and other ingredients, such as Additives, decisive for the expected colour retention. The environmental conditions include weathering, UV radiation, rainfall, pollution (industrial atmosphere) and other factors, which is exposed after curing of the coating. It should be noted that all the outdoor used coatings are subjected to natural aging processes. Because the relationships are very complex and diverse, it is imperative that for optimal colour retention all possible parameters must be considered. Not every desired colour nuance is due to different pigmentation permanently preserved, so that especially intense colours, such as violet, blue or red, it should be exercised some caution, particularly when they can just be formulated with relatively small amounts of organic coloured pigments.
Compressive strength	In the compression test determined material parameter for the resistance to compressive forces; defined as the ratio of the fracture inducing Fmax maximum load and the initial cross section A0 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
Conductivity	The conductivity names the properties of dissipating electrical energy. The extent to which this happens is determined by the resistance of the material which is measured in ohms. 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 megohm = 106 ohm is defined. Measured according to DIN EN 1081 for explosion protection (ATEX) or for ESD protection in the electronics industry in accordance with EN 61340-4-1. 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.
Conductive layer / conductive primer	The conductive layer is an intermediate layer which derives the electric charge in the floor covering system to the potential equalization (earth). The connection of the conductive layer to the potential equalization is via a copper strip.
Core hole	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. 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. Also the layer thickness of coatings can be determined.
Crack bridging properties	The ability of a coating to bridge by dynamic or static stress caused cracks in load-bearing base.
Curing / hardening	Complete transition of the binder from the liquid to the solid state

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DAfStb	Abbreviation for "Deutscher Ausschuss für Stahlbeton" = German Committee for Reinforced Concrete
De-icing salt	De-Icing products used mainly on roads, and therefore also in the bridge area and car park area to bring ice and snow to melt. De-icing salts are chlorides and can entering through the capillary pores of the concrete into the structure. The salt crystals can, once they reach the steel reinforcement, bring the steel to corrode (chlorides). When concrete repair chloride contaminated surfaces should be completely removed.
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 cooled to below the dew point a condensation of water vapour occurs, for example, if warm air meets cold components (see dew point).
Document of performance (DoP)	The declaration of performance shall express the performance of construction products in relation to the essential characteristics of these products in accordance with the relevant harmonized 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 an 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 (EPA) is an ESD workstation in which electrostatic charges, often arising by static electricity, be prevented by anti-static equipment. According to the current ESD standards, the maximum permissible electrostatic charges are specified in accordance with the Human Body Model with 100 V for ESD protected areas. This is to protect against electrostatic discharge (ESD) which can damage or destroy sensitive electronic components.
Egalisation / levelling layer	Intermediate layer for levelling or egalisation of uneven surfaces. Can be uses as unfilled or with quartz sand or fillers filled products.

ESD	Electrostatic discharge (short ESD) is a physical event (spark or breakdown), through large potential difference, which causes an electrical device to a short, high electrical voltage pulse. Under unfavourable circumstances, this voltage output may damage electrical components in the unit. Thereof field effect transistors are particularly affected. Another undesirable consequence may be the uncontrolled ignition of combustible gas. Cause of the potential difference is usually a charge through friction electricity (triboelectric effect) or electrostatic induction. Static electricity occurs e.g. on while running on a carpeted floor, where a person can be charged up to about 30,000 V.
Filler	Mostly mineral parts which are included already in the packaged coating materials or which are added in the coating materials on site to adjust the processing consistency and to enhance system properties or to change, such as increasing the layer thickness. It is important that fillers which are added to the resins must be oven dried because some resins are moisture sensitive. Examples of fillers are: silica sand, granite and other hard materials, silicon carbide, etc.
Filling	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. DIN 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).

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Glass transmission temperature	The glass transition temperature or softening temperature (TG) is the temperature at which 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 9001	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. The eight principles of quality management are: 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
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.
Kelvin (e.g. 3 K)	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)
Levelling layer	Intermediate layer for levelling or egalisation of uneven surfaces. Can be uses as unfilled or with quartz sand or fillers filled products.
Low solvent content	Coating whose binder is diluted with max. 5% volatile organic solvents (according to TRGS 610) (includes VOC).

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Lunker (shrinking hole)	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.
Lunker / scratch coat	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.
Magnesite screed	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 magnesia special measures must be taken.
mechanical load	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
Mixing ratio	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)
Moisture content / residual moisture content	For concrete repairs or synthetic resin coatings the residual moisture content means the moisture content by weight percentage of water in the subsurface. Upon execution of the coatings following guidelines apply: Max 4 % per weight in cementitious substrates max. 8 % per weight at magnesite substrates max. 0.5 to 1.0 % per weight at anhydride and calcium sulphate based substrates, or it may cause damage to the coatings with thermosetting resin systems. The moisture in the substrate can be carried out using a CM-device or by electrical resistance measurement. For substrates with floor heating special values are valid and special measures must be taken.
Newton (N)	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 m / s the weight of a body of mass 102 g. (Named after the physicist Isaac Newton)
Osmosis	An in practice sometimes observed damage is bubbling 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 a with quartz sand broadcasted primer), when on both sides of the membrane, different concentrations (e.g. of salt particles, corrosion 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 water-filled bubbles, e.g. between base material and coating or between primer and coating (also called osmotic pressure)

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Over coating / Re-coating	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.
Polyuria (PUA)	Polyuria or polyuria's are polymers resulting from the polyaddition of isocyanates and amines. The polymer has a structural element similar to that of urea. Structurally, they are among the aminoplasts
Polyurethane (PUR)	Polyurethanes are plastics or synthetic resins resulting from the polyaddition of diols or polyols with polyisocyanates.
Pre-wetting	Surfaces to be coated with hydraulically setting mortars must be previously wetted to fill the pores of the absorbent concrete substrate with water. A pre-wetting of the concrete substrate is also on behalf of a bonding slurry or bonding agent necessary or prescribed by material manufacturer.
Primer	Low viscosity and mostly filler-free reaction resins, often based on epoxy resin, for producing an adhesion, e.g. used between the concrete substrate and an epoxy resin system. Primers are usually slightly or in excess sprinkled with an oven dried quartz sand.
Quartz sand / quartz powder (QS / QM)	Mineral aggregate for sprinkling and filling coatings. Silica sand is supplied in various particle groups and usually has a light grey to light brown (beige) colour. Quartz sands are used for coatings exclusively in fire-dried form. Depending on the basic colour of this can also affect the colour tones of coatings.
Rear moisture exposure	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.
"Re-potting"	For two or multi component materials it is mandatory to pour the mixed material into another container and stirr again to avoid that unmixed material is poured onto the surface which should be coated with the liquid material.
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.

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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-dried quartz sands and aggregates are used.
Scratch coat	Scratch coat refers to a 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.
Seal coat / sealer (top coa	Seal coats or sealer are applied as a thin-layer protective coating for a 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 sealers are also called as top coat.
Shot blasting	Shot blasting (also "Blastrac") is an effective and economical method to prepare preferably horizontal surfaces. Small steel balls are thrown with a spinner on the concrete surface and absorbed and recycled again during the return with the removed concrete (separation of the steel balls from the ablated material).
Slip resistance / non slip	Solvents or thinners abate the viscosity of the synthetic resin systems. In thick-film applications solvents are suitable as they can't 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 changed!
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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).
Standard colours	Colours within the product range that have already been formulated. (see colour list in the annual gross price list). The colours are divided depending on pigmentation / colour in different price ranges / price groups.

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Storage stability / best before date	Period of time after production, in which a properly stored coating product may be used while maintaining its functional properties.
strong solvent based	Coating whose binder is diluted with more than 10% volatile organic solvents (includes VOC).
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 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 / mm².
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 a 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	Top coat 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 materials which have no or only minor changes in the characteristics (colour, abrasion ...) under the influence of UV light called UV-resistant. However, substances which have discoloration but not chalking under UV influence can be UV resistant.

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Viscosity	The viscosity is a measure of the flow properties of a liquid. The greater the viscosity, the more viscous (less flow able) is the fluid; the lower the viscosity, the thinner (flow able) it is. Unit: mPas
Water vapour permeability	When molecules of a gaseous substance penetrate into another substance, this is referred to as diffusion. Vapour diffusion Is referred to as the diffusion of water vapour.
water based / water borne coatings	Coatings whose processing consistency was 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)	Side reaction in EP-coating materials by non-proper application of the coating material by reaction with CO2 and water from the ambient air (dew point) or due to weather conditions. The carbamate formation is manifested by whitish discoloration on the surface that must be removed mandatory for primers and intermediate layers since consequential damages cannot be excluded.
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 period within which a coating material has a processing consistency.

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