

PROFESSIONAL CONCRETE PROTECTION



MCF - monolithic ceramic flooring



CHEMCOLOR
protective coatings since 1982



Concrete is a blend of natural materials - binders, water and sand, and has been used in a slightly modified form as a building material for thousands of years. Despite its extreme durability and long service life, concrete has many enemies. The main ones are water, different chemicals and excessive mechanical stress. Water causes a number of problems in concrete, such as frost cracks, corrosion of reinforcing steel, crystallization, mould and algae growth. Chemicals can dissolve and destroy concrete or make it problematic to use with contamination. Excessive mechanical stress causes local cracks or severe damage.

Concrete flooring in factories, warehouses, garages, shops, etc. are subject to all the above factors. Therefore, in practice, concrete floors need to be further protected to ensure long service life and easy maintenance.

A variety of concrete flooring protection solutions are available: tiles, stone, textiles, rubber, vinyl, wood or polymeric flooring. Each solution has certain advantages and disadvantages. Polymer flooring have long been established as a standard solution for many industrial drives. Recently, they are becoming the best choice on more and more surfaces, because of their advantages over other solutions.

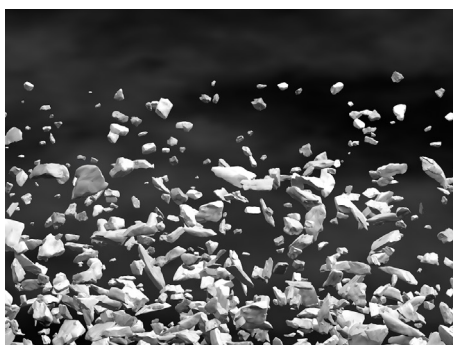
MCF - monolithic ceramic flooring

Products from the monolithic ceramic flooring (MCF) family are generally the best choice for concrete protection. High-performance, fast and simple execution, both environmentally and user-friendly, ensures cost optimization and thus an efficient sophisticated system for all traditional construction applications.

Monolithic appearance

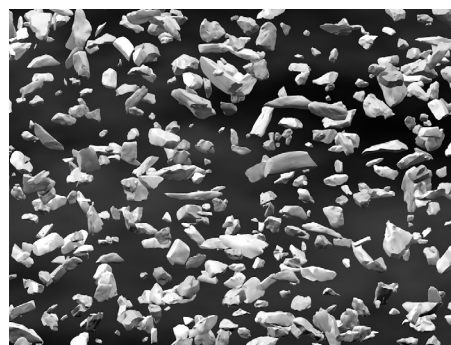
MCF pressures are monolithic both in terms of surface and volume. What does that mean? The appearance is seamless, without joints over the entire surface, which means an easy and clean appearance. Uniform composition by volume means uniform composition - the ratio between epoxy binder and fillers - both on the surface and in depth and at the bottom of the coating. The lifetime of MCF pressures is therefore in real cases much longer than that of CSF pressures.

CSF - classic solvent free



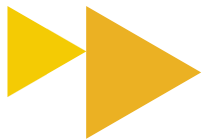
The fillers - sand, glass beads etc... settle to the bottom of the protection layer, so the abrasion resistance is determined by the properties of the epoxy, which can be high, but still less than that of silica sand!

MCF - monolithic ceramic flooring



Even distribution of the silica sand over the entire thickness of the pavement makes it extremely durable and minimises wear, even under high loads!





MCF FLOORING

FEATURES

- Unique seamless application with no pores and contacts
- Excellent value for money
- Perfect grip across the entire surface
- Excellent adaptability of systems to achieve maximum mechanical and chemical resistance

ADVANTAGES

- Easy to use even in complex building spaces
- Excellent fluid stopper
- Huge combinations for different conditions of use
- Wide range of color tones
- Easy cleaning with low maintenance costs

1 Easy restoration

Pressures from the MCF group are extremely easy to restore. They are semi-matte or matte in nature. For restoration, they need cleaning or light sanding - depending on the situation. Local injuries can be effectively treated locally. Classic CSF systems require thorough sanding or, in the case of peeling, due to the nature of the system, complete removal.

2 Sensitive substrates

MCF primers provide optimal protection, the fastest execution and a very competitive price. Adhesion to both dry and wet surfaces is a guarantee for quality performance. In multi-storey garage houses, the moisture in the concrete during application or later is often too high for classic systems, especially in basement areas. MCF foundation is the best technical solution for all concrete substrates and offers the best results both in industrial and warehouse applications as well as in shops, salons, airports, farms...

3 Vapor permeability

MCF epoxy coatings are resistant to the rise of capillary moisture, because compared to conventional solutions, they breathe - they let water vapor through. This problem arises from the pressure rise under the coating. The pressure resulting from reverse osmosis exceeds the adhesion value, resulting in blistering and peeling. MCF epoxy coatings offer a convenient and reliable solution that has already proven itself on many projects in practice.

4 Optimized stocks and high responsiveness

For the implementation of mainly small and medium-sized buildings, fast delivery and optimized stock are crucial for high responsiveness and efficiency. Universal systems such as EP 272 W HT enable high flexibility and minimal waste of time and material. The coating can be diluted 20% with water and used as a primer or undiluted as a finishing coating. With the addition of quartz sand and flour, the product can be used as a self-levelling pressure. With the addition of quartz sand and cement, we can make a filler for larger thicknesses with exceptional adhesion to concrete and subsequent layers and very fast drying. Such a mixture can also be used as an adhesive for tiles.

5 Appearance

Polymeric floorings are available in different designs and especially shades, which is very welcome for selected flavors. They can also be installed in boutiques, offices or studios and with some knowledge unique patterns and unique floors can be made.

6 Time and material saving

MCF systems offer an optimal ratio between price and quality. Thin film MCF coatings are easy to use. Working with them is fast, the appearance is professional. Due to the long open time of use and fast drying, it is possible to perform several layers of protection in one day, which means fast and efficient execution.

7 Protection of quality soil

Quartz pressure in a high-frequency warehouse requires dust protection. Coatings from the MCF family ensure quick execution, an aesthetic appearance (glossy, semi-matt, matte in all RAL shades) with easy cleaning and minimal maintenance and renovation costs. Due to the smaller required thicknesses and quick implementation, they are a much more economical choice than classic CSF systems.

8 Excellent grip

MCF coatings offer an optimal ratio between grip quality and time leased properties, which is guaranteed for long-term performance. MCF technology offers long-term adhesion even on constantly moist surfaces, where classic systems are useless.

9 Low transmission - high security

MCF systems have little odor and offer systems without volatile organic compounds (VOCs), plasticizers or benzyl alcohol. The indoor use of epoxy coatings is limited by the content of solvents and other volatile substances due to odor and regulatory restrictions. MCF epoxy coatings are thus completely reactive, without plasticizers and therefore offer a system compliant with European legislation. In the event of a fire, MCF pressures are much less dangerous than classic designs, as the spread of flames and smoke formation is reduced.



C-GUARD® MCF PRODUCTS

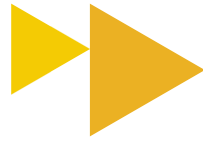
PRODUCT	PROPERTIES AND FIELD OF USAGE	THEORETHICAL CONSUMPTION [m²]	MIX RATIO [wt]
EP 385 W	EP 385 W je a two component epoxy water vapour permeable self-leveller for concrete and screeds with adequate tensile and compressive strength. It can be used on floors without appropriate hydro isolation like warehouses, production units, garages, stores. It can be used for non-slippery floors in food industry where there is a lot of humidity.	2.5-3.0 kg 1,5 mm thickness	9.8 : 1.2
EP 270 W	EP 270 W is a two component epoxy water vapour permeable coating for concrete and screeds with adequate tensile and compressive strength. It is designed to be used only for concrete surfaces in closed spaces. It is especially adjusted to loadings in garages, basements, warehouses, productions, food industry (excellent chemical and mechanical resistance).	Flat surface 0,12-0,18 kg Rough surface 0,20-0,35 kg	10 : 2
EP 271 W	EP 271 W is a two component epoxy water vapour permeable matt coating for concrete and screeds with adequate tensile and compressive strength. It is specially designed to be used only for floor and wall applications in closed spaces.	Flat surface 0,15-0,20 kg Rough surface 0,25-0,40 kg	10 : 2
EP 272 W HT	C-Guard® EP 272 W HT is a two component epoxy water vapour permeable coating for concrete and screeds with adequate tensile and compressive strength. It is specially designed to be used only for floor applications in closed spaces because it is highly resistant to hot tyre marks.	Flat surface 0,12-0,18 kg Rough surface 0,20-0,35 kg	10 : 2
EP 273 CLM	EP 273 W CLM is a two component epoxy water vapour permeable coating for matting of glossy epoxy or polyurethane surfaces. It is used for surfaces not exposed to UV rays. It is mainly used for matting of glossy epoxy or polyurethane surfaces. Wet surface is not slippery.	Flat surface 0,08-0,12 kg Rough surface 0,18-0,3 kg	10 : 4
EP 170 W CL	C-Guard® EP 170 W CL is a two-component transparent epoxy vapor-permeable primer for concrete. It is used only for concrete surfaces and glazes in closed spaces. It is used as an impregnation to equalize absorption in the substrate or as a protection for pavers and other concrete surfaces.	Flat surface 0,04-0,1 kg Rough surface 0,15-0,3 kg	10 : 5
PU 220 W	PU 220 W is a two component UV resistant polyurethane water vapour permeable coating for concrete and screeds with adequate tensile and compressive strength. It is used as a wall or floor coating in schools, hospitals, balconies, terraces, productions, food industry (very good chemical and mechanical resistance).	0.1 kg/m² Za nanos	10 : 2
PU 221 W CL	PU 221 W CL is a two component colorless UV resistant polyurethane water vapour permeable transparent coating for concrete, absorbent silicon or clay tiles, etc ...	0.1 kg/m² Za nanos	10 : 2
PS 180 W	Silicate polymer based on special polymers and water glass for hardening - consolidation and hydrophobization of mineral surfaces. It is intended for the waterproofing of mineral substrates, especially roof tiles and ordinary bricks. It is particularly suitable as a water-repellent agent for clay products (e.g. roof tiles, ordinary bricks, floor tiles, terracotta), as well as various natural stones, sandstones and plaster ...	Brick 300-400 ml Concrete 200-500 ml	1K
AI 150 W	AI 150 W is water based acrylic impregnation, based on APEO free pure acrylic emulsion. It has excellent water whitening resistance and low water and dirt pick up. It has a strong hydrophobic effect and high resistance to stains.	Flat surface, 0,08-0,12 kg/m² Rough surface, 0,12-0,18 kg/m²	1K
AC 250 W	AC 250 W is an acrylic UV resistant water vapour permeable coating with low VOC content. It is used as a wall or floor coating in schools, hospitals, balconies, terraces, productions, food industry (good chemical and mechanical resistance).	Flat surface 0.15 – 0.20 kg Rough surface 0.25 – 0.40 kg	1K

C-GUARD® CSF PRODUCTS

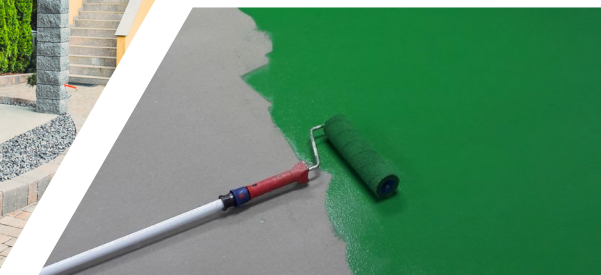
PRODUCT	PROPERTIES AND FIELD OF USAGE	THEORETHICAL CONSUMPTION [m²]	MIX RATIO [wt]
EP 120	EP 120 is a solvent free, two component, epoxy colorless primer for concrete and screeds with adequate tensile and compressive strength. Material has a good curing at temperatures down to 8 °C and even after short curing times the film is insensitive to water.	Primer 0.3 - 0.4 kg Anti-abrasion coating 0.4 - 0.6 kg	10 : 5
EP 152	EP 152 is a solvent free two component epoxy colorless primer. It is highly moisture resistant. It can be applied on pale-damp surfaces to displace water, resulting in excellent adhesion. It combines good adhesion and wetting power and therefore is extremely appropriate for difficult substrates. It is suitable for critical substrates for temperatures above 12 °C.	Primer 0.3 - 0.4 kg Anti-abrasion coating 0.4 - 0.6 kg	10 : 6
EP 230	EP 230 is a two component, epoxy top layer for concrete and screeds with adequate tensile and compressive strength. Material has a good curing at temperatures down to 10 °C and even after short curing times the film is insensitive to water. It is used as a final layer on concrete, screeds, self-levelling materials, mastic asphalt surfaces with normal to medium-heavy mechanical and chemical exposure	Final application 0.25 - 0.4 kg Anti-abrasion coating 0.35 - 0.5 kg	8.6 : 1.4
EP 300	EP 300 is a two component, solvent free, epoxy top self-levelling layer for concrete and screeds with adequate tensile and compressive strength. It is used as a final layer on concrete, screeds, self-levelling materials, mastic asphalt surfaces with heavy mechanical and medium – heavy chemical exposure such as warehouses, production plants, garages, basements, showrooms, etc. . .	Levelling with sand cca. 0.5 kg Final application 1.5 – 2.0 kg	10 : 2
EP 308	EP 308 is a two component, solvent free, epoxy self-levelling layer for concrete and screeds with adequate tensile and compressive strength. It is used as a final layer on concrete, screeds, self-levelling materials, mastic asphalt surfaces with medium-heavy mechanical and chemical exposure such as warehouses, production plants, garages, basements, showrooms, etc. . .	Final application 0.6 - 0.8 kg Anti-abrasion coating 0.35 - 0.5 kg	8.5 : 1.5
PU 330	PU 330 is a self-levelling two-component polyurethane finish that delivers smooth, firm and at the same time elastic floors for medium to very chemical in mechanically exposed surfaces. It actually has no shrinkage when drying. It offers its elasticity on soft substrates such as asphalt, glued boards, parquets or metal surfaces. It offers very good resistance to chemicals, fuels, water, weak bases in acid.	1.45 kg za 1 mm thickness	10 : 2.5
PU 340 FLEX	PU 340 Flex is a polyurethane transparent, UV and weather-resistant one-component binder, solvent-free. It is used for making sand carpets, waterproofing of balconies and terraces, for filling cracks (0.3-0.5mm). It is extremely elastic and hardens with moisture from the air. Even with larger thicknesses (1mm), the material does not bubble. It offers good resistance to chemicals, fuels, water, weak bases and acids.	1.1 kg za 1 mm thickness	1K

SPECIAL PRODUCTS

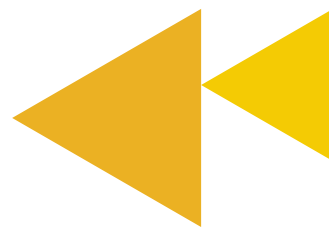
PRODUCT	PROPERTIES AND FIELD OF USAGE
ACCELERATOR	C-GUARD ACC - Additive for faster hardening of epoxy systems - add up to 5% wt
THICKENER	C-GUARD THICKENER - Thickening thixotropic agent for primers, coatings
COLOR FLAKES	C-GUARD COLOR FLAKES - Decorative colored flakes – chips



REFERENCES



PROFESSIONAL CONCRETE PROTECTION



About the mark

The C-Guard® brand stands for high quality polymer coatings and thick layer linings for protecting of concrete floors and walls. C-Guard® floor coverings and coatings are solid, durable, chemically resistant, non-porous, hygienic and easy to clean. They are available in different shades of color. They can be installed in different thicknesses and with different surface textures.

Durability

Polymer flooring has a much longer life span than many other types of flooring. The only material that will last longer than the polymer pressure is the concrete floor itself. However, it is virtually impossible to maintain the same appearance of concrete floors over a long period of time.

Cost structure

Polymeric pressures are very affordable compared to other options. The relatively low cost of installation and easy maintenance is a guarantee for long-term low costs. Very high resistance to mechanical, chemical and biological influences ensures that your pressure will look new for a long time.

WHY WORK WITH US

Chemcolor has been manufacturing coatings since 1982. Over the past 20 years, we have focused primarily on the professional quality required by the industry. The main part of the production program is represented by high-quality protection systems for metal surfaces.

FLEXIBILITY TO YOUR NEEDS

Small team and simple structure give us the possibility of fast response times and easy decision making. Full production and laboratory equipment means great flexibility. We can serve you from 25 to several thousands of litre batches done with precision and care you need and deserve.

TAILOR MADE SOLUTIONS

We pay extra attention to your needs. Our offer does not end with our product portfolio. We listen to your needs and we already start with small quantities. We always seek for best possible solution and price/quality ratio. We use our extensive laboratory equipment and knowledge for development and we work „hand in hand“ with institutes, universities and research labs of our suppliers.

FULL SERVICE IS OUR COMMITMENT

We support our partners from idea to solution. We give education for end users, supervisors, architects, we are helping you with paperwork, we make liquid and solid

samples, lab and field trials and we help in supervising the quality control for your important projects.

INDEPENDENT CERTIFICATION OF PROCESS AND PRODUCTS

We trust in us and our solutions. But we always want to play safe and to bring utmost safety to our partners. This is why we only sell independently certified systems for protection of your products or property. We of course also yearly check our quality management and relationship towards environment in forms of ISO 9001 and 14001.

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CHEMCOLOR
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