ZERTIFIKAT PLUS SILICONE BASED PAINT
EXTERIOR PAINT
V7110

TEHNICAL DATA SHEET

Product description:

Description:

V7110 is a washable silicone resin paint used for façades. It can be tinted using Kolor Explorer computer system.

Use:

It is used for finishing facades, on cement, lime-cement and concrete mineral plasters. Also suitable for application over old aqueous dispersion paints, resistant to wear and washing. Apply in conditioned form on gypsum (with test coat), lime or wood plaster. Do not apply to resins and synthetics, lacquer or oil-based coatings, glue paints, lime coatings, substrates below natural ground level or surfaces where moisture acts under pressure.
V7110 is used for the decoration and renewal of new and old buildings, as well as for the protection of historical buildings and monuments.

Main characteristic elements:

- water impermeability and high water vapour permeability (according to SR EN 1062)
- resistant to soiling and microorganisms
- superior resistance to physical, chemical and weather factors
- excellent light resistance
- reduced drying time
- environmentally friendly
- easy to apply

Shelf life in packaging:

48 months from the date of manufacture, subject to compliance with packaging and storage conditions; depending on storage conditions, product should be mixed before use.

Packaging:

4L and 15L capacity plastic containers.

Compatibility:

V7110 series product should not be mixed with products other than those recommended for tinting by the manufacturer.

Storage:

In closed, dry, covered, ventilated spaces, protected against weather and solar radiation, away from fire sources, at temperatures between 5 - 25°C.

Shipping:

The products are shipped by covered means of transport according to the regulations in force.

Certification:

V7110 product has a technical agreement drawn up by Urban-Incerc Bucharest and issued by the Permanent Technical Council for Constructions - Bucharest.

Product technical data:

TECHNICAL QUALITY CHARACTERISTICS

Table no.1

Item No.	Characteristic value	MU	Characteristic value	Application method
a) Liquid product characteristics				
1.	Appearance	-	viscous, thixotropic suspension	visual
2.	Colour	-	white	visual
3.	Non-volatile substance content, 0.5g/50cm^2, 125℃, 25 min.	%	62 ± 2	SR EN ISO 3251:2019
4.	pH	-	8.5 - 9	pH-meter

5.	Density, 23 ° C	g/ml	1.55 ± 0.05	SR EN ISO 2811-1:2023
b) Film characteristics				
1.	Appearance	-	matt	visual
2.	Degree of whiteness, min.	%	83	ISO 18314-3
3.	Dry to handle time (Type D), at 23±2℃, 50 ± 5% relative humidity, max.	h	4	ASTM D 1640M-14 (2022)

Method of application:

- brushing/rolling
- air spraying (pressure 2-2.5 bar, 1.8mm nozzle)
- airless spraying (pressure 150-250 bar, spraying angle 40℃, nozzle 0.013-0.026)

Application details:

The product is diluted with clean cold water (15-25℃)

- brushing / rolling - apply 1-2 coats of undiluted product
- air spraying - apply 1-2 coats of the product diluted approx. 30%
- airless spraying - apply 1-2 coats of undiluted product

Specific consumption:

- up to 12-16 m^2/l/coat

Consumption depends on application conditions (surface geometry, application method, environmental conditions, nature and preparation of surface).

Re-coating:

- 4 hours

Drying times:

Lower temperatures and increased air humidity prolong drying times. Drying times depend on temperature and film thickness, being prolonged by decreasing temperature and increasing film thickness. Poor air circulation and excessive humidity negatively influence the drying process and lead to deterioration of film characteristics.

Preparation of the product for application

Surface preparation:

The application of the product on the surface should be done only after proper preparation, as this step has a determining influence on the quality of the coating and its durability.

Preparation of interior surfaces:

It is necessary to strictly follow the recommendations. The applied surface must correspond to the norms in force, be dry, flat, without dust or other impurities, which could affect the adhesion of the product to the support. Before applying the decorative product, all repair work will be carried out, respecting their drying and curing time. Otherwise, the properties of the final finish may be compromised and the durability of the system decreases. Any unrepaired crack can be the starting point for the coating to detach from the support.

New surfaces:

- in order to achieve a perfectly smooth surface, apply the putty mass, respectively the finishing putty, which are later sanded using circular movements with abrasive paper; for large surfaces, sanding devices are used
- freshly finished surfaces must be dusted
- if repairs are necessary, for cracks with a maximum depth of 2 mm, it is recommended to close them with STUC C4000 masonry putty
- for larger thicknesses, it is recommended to successively apply several layers of putty, with intermediate sanding and dust removal
- the plasters that, by hammering, prove to be inadequate are removed completely, up to the masonry, the larger grains of sand, evident on the surface of the plaster, must be removed because they will come off with time, together with the finish, by touching
- during the entire period of resealing or repairing the problem areas, the temperature of the support must be higher than 5℃, ideally 10℃
- leave the fresh plaster for at least 24 hours to dry completely before applying the finishing layer

Repainted surfaces:	• check the condition of the plaster by hammering • at the parts that come off, the plaster is redone and the damaged edges are repaired • old, non-adherent paints are completely removed • paints based on glue (huma) are completely removed • the areas attacked by fungi or mold are impregnated and cleaned very well with an anti-mold solution, after which they are completely dried
Surface priming:	• priming provides uniform absorption on the substrate, so that the last coat of finish appears perfectly homogeneous and stain-free; the aim is to increase the adhesion between the applied product and the substrate • priming is mandatory and consists of applying 1-2 coats of G7101 Silicone Tiefgrund diluted max.5% with clean cold water (15- 25℃) and G7110 Silicone primer diluted 1:5 with clean cold water (15-25℃) **Attention!** It is not recommended to apply undiluted G7110 primer – this application will create a glossy surface, reduce the adhesion of the paint layer to the support and, in this case, the risk of cracks and exfoliation increases. • priming is done only after the clean, repaired or resealed surfaces have completely dried • freshly plastered and repaired areas must be additionally primed, due to the higher degree of absorption they present • only after drying the primed surface can the final product be applied. It is necessary to strictly follow the recommendations.
Preparation of external surfaces: **Preparing the support:**	The preparation of the support is carried out in accordance with SR EN 1062-1.The applied surface must correspond to the norms in force, be dry, flat, without dust or other impurities, which could affect the adhesion of the product to the support. Before applying the decorative product, all repair work will be carried out, respecting their drying and curing time. Otherwise, the properties of the final finish may be compromised and the durability of the system decreases. Any unrepaired crack can be the starting point for detaching the coating from the support, as the surface is exposed to thermal variations (freeze-thaw). New supports exposed to high humidity due to capillarity cannot be covered without repairs or preventive treatments. We recommend priming with 1-2 layers of Silicon Tiefgrund G7101. The coating for masonry and concrete is generally carried out in three stages, which depend on the condition of the support, namely: preparation operations, priming operations and the realization of the coating. It is recommended to apply the coating system on a test surface (reference surface) for an initial evaluation.
Old surfaces:	• the previous coatings that show detachments or inadequate adhesion are repaired, leveled with a putty, then primed • the areas repaired by re-watering are left to dry for at least 3 days, they are sanded, they must be dusted off and primed • the product is not applied on layers of lacquer, respectively oil, alkyd paints, synthetic materials or low quality paints • the films of lime or humus are completely removed and the entire surface is primed.
New mineral surfaces, plasters and concrete:	• cement-based plasters, freshly applied cement-lime or concrete structures can be finished after keeping a sufficient drying time, usually after 2 weeks, at approx. 20℃ and 65% relative air humidity. In case of unfavorable weather conditions, the drying time will be extended • the glazes must be left to dry and mature for at least 7 days • after complete drying of the repaired area, it is necessary to level the surface; larger grains of sand, evident on the surface of the plaster, must be removed because they will come off with time, at the same time as the finish, by touch; the resulting dust is removed • the plasters that prove inadequate by hammering, are completely removed up to the masonry and the repair works are carried out; complete drying, in depth, of the repair works is awaited • existing cracks are repaired with fast-hardening cement paste during the entire period of

Application conditions:	waterproofing or repairs of the problem areas, the temperature of the support must be between 10-30℃ • fresh concrete is strongly alkaline and chemically reactive; it requires at least 28 days for hardening and drying before applying the plaster; if the decorative finish is performed before this period, the risk of cracking and the appearance of efflorescence increases. If the concrete has bleached surfaces, it means that efflorescence is present and it is necessary to use Silicon Tiefgrund G7101 as a first layer. **Inside** • relative humidity of the environment: max. 70% • temperature of the environment and the support: 10 - 30℃ • ventilation of the work space is recommended **Outside** • the temperature of the environment and the support - the ideal range for application is 10 - 30℃ (the temperature of the environment must not fall below 10℃ in spring and autumn, and in summer it must not exceed 30℃ and the temperature differences on the same wall do not exceed 5 - 6℃) • relative humidity of the environment: max. 65% (the products are not applied on wet surfaces and in conditions of high humidity (fog, snow or other weather phenomena), in areas exposed to bad weather and water leaks or in direct sunlight) • product temperature: 15-30℃ • the temperature of the substrate is recommended to be at least 3℃ above the dew point temperature to avoid moisture condensation on the substrate, which can cause a decrease in adhesion, peeling and exfoliation • do not apply on horizontal surfaces on which precipitation falls perpendicularly (roof, flashings, etc.)
Remarks:	**Beware of the danger of freezing overnight!** It is not recommended to apply if there are large temperature differences between day and night, especially in spring and autumn, when positive temperatures (10-20℃) can be recorded during the day, and temperatures can even drop below 0 at night. ℃, phenomenon that leads to the appearance of defects (cracks, exfoliation). Avoid working at temperatures higher than 35℃ in the air. Above this temperature, forced drying phenomena may occur, which will decrease the final quality of the film. It is recommended to apply the product on the facade during the day, when the surface is not exposed to direct sunlight. During application and drying, we recommend protecting the applied surface from rain with the help of scaffolding tarps for at least 3 days after application. High air humidity and low temperatures can considerably prolong the drying time, causing irregular changes in color (stained appearance). **Cracks appearing in the plaster and standing water can cause the film to peel.** **Application with unsuitable tools may result in inappropriate appearances and thicknesses compared to those specified in this technical data sheet.** **NOTE: Failure to comply with these conditions may lead to defects or total damage to the protection.**
Application instructions:	Condition the product at 10-30℃, homogenize well and apply on suitably prepared surface, as follows: • brushing / rolling - apply 1-2 coats of undiluted product • air spraying - apply 1-2 coats of the product diluted approx. 30% with clean cold water (15-25℃) • airless spraying - apply 1-2 coats of undiluted product Wash the application tools with water immediately after use. Do not use below + 5℃.
Application system:	**New support:** adhesive / filler / plaster (different types) for exterior **Coat 1**: 1-2 coats Silicon Tiefgrund G7101 diluted: 1 coats/ diluted 5% mass; Silicone primer G7110, diluted 1:5 with clean water **Coat 2**: Zertifikat Plus Silicone V7110, undiluted **Coat 3**: Zertifikat Plus Silicone V7110, undiluted
Security Data:	See the product safety data sheet.

Occupational safety:	As a water-thinnable product, it does not pose particular occupational safety problems. Avoid contact with skin, eyes and mucous membranes. In case of skin contact, wash with warm water and soap. In case of eye contact, wash thoroughly with water and then see a specialist.
Note:	All these data are of a general nature regarding the performance and use of the product, therefore we recommend testing the product under the conditions of the beneficiary's own application technology. For further clarification, please contact the manufacturer.