

I. Product Description

Cold-curing, two component synthetic resin mortar made of modified phenol-resol and a carbon based filler. The mortar is a product with the highest chemical resistance, especially to acids and solvents.

II. Properties and application

The cured mortar is electrically conductive and suitable for the producing of electrically discharging floor coverings. Very good adhesion is achieved on ceramic and carbon tiles. When heated up for the first time, Dolit CN undergoes permanent expansion and is thus suitable for lining works, where pretensioning is required.

Laying and jointing brick, tile and moulded components made of ceramic or carbon for production of chemically, thermally and mechanically resistant coatings and linings.

III. Physical Data

Property (unit), Test method	Value
Density (g/cm ³), DIN EN ISO 1183-1, ASTM D 792	1.50
Abrasion resistance (cm ³ /50 cm ²), DIN 52108, ASTM C 241	10
Flexural strength (MPa), DIN EN ISO 178, ASTM C 580	24
Compressive strength (MPa), DIN EN ISO 604, ASTM C 579	65
Modulus of elasticity (MPa), DIN EN ISO 178, ASTM C 580	7800
Electrical resistance (Ohm) acc. to DIN EN 14879-3 for a relative humidity of > 70 %, ASTM F 150/98	≤ 10 ⁶
Shore D hardness, DIN 53505, ASTM D 2240	70
The thermal coefficient of linear expansion (1/K), ISO 11359-2, ASTM C 531	19 x 10 ⁻⁶
Thermal conductivity (W/mK), ISO DIS 22007	1.65
Tensile Strength (MPa), DIN EN ISO 527, ASTM C 307	8.50
Temperature resistance (°C)	
dry	approx. 200
wet	approx. 180
Adherence to ceramic bricks (MPa), DIN EN ISO 4624 and carbon parts	>Inherent tensile strength

IV. Chemical Resistance

Aldehyde	+	Ester / Ketones	+	Phosphoric acid 85 %	+
Alcohols	+	Hydrofluoric acid 50 %	+	Nitric acid 10 %	0
Formic / Acetic / Lactic acid	+	Methylene chloride	+	Hydrochloric acid 37 %	+
Ammonia 25 %	+	Mineral oils	+	Sulfuric acid 90 %	+
Benzene / Toluene / Xylene	+	Petrol	+	Soda solution	+
Chromic acid 20 %	0	plant / animal oils and fats	+	Trichlorethylene	+

Explanation of Symbols

- + resistant at 20 °C
- 0 conditionally resistant

V. Preconditions

Dolit CN may not be applied directly on concrete or steel surfaces. These must be isolated beforehand. Minimum, a suitable priming coat is required, e.g. Dolit 848. The last coat of the primer should be sprinkled while the material is still fresh. However, coatings, primarily sealing coatings or rubber coatings are generally used.

Smoothing-out of unevenness should be carried out on the substrate; even otherwise, the application may not exceed a thickness of 5 mm.

The temperatures of working area, substrate and material should be 10 °C – 30 °C during application.

Below 10 °C significantly delay curing.

VI. Components

The products shall be stored and transported in a cool and dry place. Shelf life is specified for a storage temperature of 20 °C. Higher temperatures reduce, lower temperatures increase the shelf life.

Component	Colour approx.	Item number	Package	Content	Shelf life
Dolit-CN-Solution		5233005018	Hobbock	50 kg	12 months
Dolit-CN-Powder		5233045021	Bag	15 kg	24 months

Safety precautions: For handling, transport and storage observe the relevant material safety data sheets.

VII. Mixing ratio, mixing order and consumption

Mixing Ratio

	Components	Volume measuring vessel in liter	Weight in kg	Consumption in kg / L
Dolit CN Mortar	Dolit-CN-Solution	0.820	1.000	0.577
	Dolit-CN-Powder	2.290	1.600 (*)	0.923

(*) The addition of Dolit-CN-powder can be varied by up to 10 % depending on the state of the Dolit-CN-solution (viscosity, temperature).

Mixing order

Pour Dolit-CN-solution into a mixing vessel, add Dolit-CN-Powder in portions and mix it until mixture is homogeneous.

If water has separated from the Dolit-CN-solution, it must be removed prior to use. Under no circumstances may it be stirred into the liquid or mixed into the mortar mass.

Consumption

The litre weight of the finished mixture is approx. 1.50 kg.

One batch is sufficient for approx. 1.73 litres.

VIII. Application

Lump free mixing must be observed.

The application should preferably be performed according to the two bed procedure.

Following joint dimensions must be observed.

Bed joint thickness	4 to max. 7 mm
Joint width by hollow joint laying	5 to 8 mm
Depth of joints by hollow joint laying	min. 15 mm

When using a gun, the surface of the part of the tiles to be joined must be waxed using floor wax. The protruding mortar bead in the joint to be filled from bottom, is cut off diagonally to the joint direction using a small trowel, after approx. 30 minutes (depending on the temperature).

Then the joints are smoothed. The surface of the tiles is then cleaned either when the cement is still fresh by using a 10% aqueous solution of caustic soda or after the cement has hardened using a high-pressure cleaner or a floor grinder / H33.

Working time

The working time after mixing is:

	Dolit CN Mortar
20 °C	60 minutes

IX. Working Equipment

Measuring vessels, mixing vessels, drill machine with stirrer (at major building sites: positive mixer), trowel, joint filling tools or joint filling gun, compressor and hoses, sponges, paint brushes, rags, site protection signs.

X. Cleaning











- All equipment can be cleaned with water. Do not allow water to come into contact with the mortar during application.
- Hands and face are cleaned with water and soap as well as skin protecting ointments. A skin protection cream should be used before starting work.

XI. Waiting time before loading

Coatings and brickwork with Dolit CN can be taken into use at the earliest only 8 days after completion. The optimum resistance against some solvents and alkalis is however only achieved after several weeks at normal temperature. This process can be accelerated by heat treatment of the finished floor coatings or brickwork.

XII. Safety

Safety instructions

-  Instructions as per § 14 of GefahrstoffV (Toxic Substances Act) and TRGS 507 (Technical regulations for Hazardous Substances - Germany).
-  Safety Data Sheets
-  Accident precautions issued by the Liability Insurance Association for the Chemical Industries (Germany).
-  Observe danger references and safety recommendation labels.
-  No smoking / no fire
-  Sufficient aeration and de-aeration.
-  Avoid direct contact of the material with the skin.
-  Use skin protective creams.
-  Clean hands with skin protective soap (no solvents).
-  Wear dust mask during grinding for repairs or connection works.

XIII. Disposal

Non-cured resin residues, cleansing agents and not entirely emptied containers must be disposed of as special refuse.

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This issue replaces all previous versions.