



Adesilex G12

Two component epoxy adhesive for laying rubber flooring



WHERE TO USE

Interior and exterior bonding of rubber, needlepunch, carpet, linoleum flooring.

Some application examples

- **Adesilex G12** is used for bonding:
 - rubber flooring tiles and sheets (with smooth back, textured back, radial rubber tiles) on interiors and exteriors subject to heavy traffic;
 - oil-resistant rubber flooring;
 - rubber sport floors;
 - carpets and needlepunch for external application (terraces, sports grounds, synthetic grass) on cement screeds.
- Highly tenacious universal adhesive for bonding concrete, wood, metal, rubber, glass, ceramic tiles etc. in any combination and on non absorbent supports or those that are sensitive to humidity.
- Bonding of fixing strips for the installation of textile moquettes

ON

all normal humidity stable substrates used in building.

TECHNICAL CHARACTERISTICS

Adesilex G12 is a two component adhesive consisting of a epoxy polymer, component A, and a special hardener, component B. By accurately mixing the two components together a

uniformly coloured paste is obtained, that can be easily applied with a notched trowel.

After hardening, solely by chemical reaction and without shrinkage, **Adesilex G12** has good resistance to water, humidity, heat, atmospheric agents, oils, solvents, dilute acids and alkalis, bacteria, salt water and chlorinated water together with high adhesion characteristics to all commonly used construction materials.

RECOMMENDATIONS

- Do not install on supports subject to rising damp (always place a vapour-proof membrane between the ground and the screed).
- Do not install on damp concrete (residual moisture content must be no higher than 3%).
- Do not install on asphalt (use **Adesilex G19**).
- Do not use **Adesilex G12** at temperatures below +10°C or above +30°C.
- Do not use on curved surfaces or on stairs if one is unable to maintain perfect contact between the covering and the support until the adhesive has set (use a suitable polychloroprenic adhesive for double coating, such as **Adesilex VZ**, **Adesilex LP** or **Ultrabond Aqua-Contact**).
- Do not use **Adesilex G12** for thin flooring which may show adhesive ridges (use **Adesilex G20**, low viscosity polyurethane adhesive).

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- Do not use **Adesilex G12** for installation on very flexible supports (use **Adesilex G19**).

APPLICATION PROCEDURE

Preparing the substrate

The substrate must be uniformly dry, flat, mechanically strong, free from cracks, dust and loose particles, varnish, wax, oil, rust, traces of gypsum and other products that may prevent bonding.

Check the moisture content throughout the entire thickness of the substrate with a carbide or electric hygrometer, keeping in mind that the latter gives only approximate values.

It is essential to ensure that there is no rising damp present.

The moisture content must be as prescribed: for cement substrates max. 2.5-3%, for those with a gypsum or anhydrite base max. 0.5%.

Screeds over light-weight concrete or over insulation layer or screeds laid directly onto earth must be isolated by laying a resistant and long-lasting vapour barrier.

If repairing cracks and crazing, consolidating screeds, forming fast-drying screeds, or levelling uneven screeds is required, refer to the section in the MAPEI catalogue concerning substrate preparation or contact the Technical Advisory Department.

Acclimatisation

Before starting the installation, make sure that the floor and wall covering, the adhesive and the substrate are acclimatised at the recommended temperature.

Floor and wall coverings must be removed from the packaging several hours before installation; the lengths must be freely laid or at least loosened from the rolls to allow acclimatisation and the reduction of tension due to the packaging.

Mixing

The two components of **Adesilex G12** are supplied in tins in pre-measured proportions: component A - 1 part by weight; component B - 1 part by weight.

Mixing must be carried out preferably with a mechanical stirrer until a paste of uniform colour is obtained.

Setting time and pot life are closely linked to the ambient temperature (see relative table).

Therefore prepare small quantities at a time. If an excessive quantity of the product has been mixed, pot life can be prolonged by subdividing into smaller tins or by placing in a cold environment.

Never use at temperatures below +10°C as the resulting setting time will be too prolonged.

NB. The ratio of the resin (component A) and the hardener (component B) is strictly determined.

Any modification to the dosage will compromise the curing of the product.

Spreading the adhesive

The choice of trowel depends on the backing of the flooring to be installed: for smooth backings MAPEI trowels No. 1 and 2. For textured or embossed backings use trowels No. 3 or 4.

Apply the adhesive evenly over an area that can be covered with flooring within 50 minutes at a temperature of +23°C. However the open time is decidedly influenced by the temperature of the environment and of the substrate, and can halve or double within the permitted maximum or minimum temperature.

Installing the floor covering

Floor coverings must be acclimatised and prepared, before laying, according to the manufacturers instructions.

The flooring, both sheets or tiles, must be applied to the **Adesilex G12** whilst still fresh and then accurately smoothed from the centre towards the edges, so as to make complete contact, and at the same time allow any air bubbles to escape from the edges.

When the flooring is uneven, the deformed sections, joints and ends must be weighted down (with sandbags or other) until the **Adesilex G12** has cured (12 to 24 hours).

Special care must be taken for exterior installations at high temperatures or with wide temperature differentials (install at the coolest time of day).

For thick flooring in sports complexes **Adesilex G19** is recommended.

Flooring bonded with **Adesilex G12** is ready for light foot traffic after approximately 24 hours. In an ambient temperature of +23°C final setting takes place after approximately 3 days.

CONSUMPTION

Consumption varies according to the uniformity of the substrate and of the back of the covering (and therefore on the trowel used):

Trowel No. 1 MAPEI: kg/m² 0.5-0.6

Trowel No. 2 MAPEI: kg/m² 0.6-0.8

Trowel No. 3 MAPEI: kg/m² 0.8-1.0

Trowel No. 4 MAPEI: kg/m² 1.0-1.4

Cleaning

Adesilex G12 can be cleaned from coverings, tools and clothing with toluene or alcohol before hardening occurs. After hardening it can only be removed mechanically or with **Pulicol**.

Colour

Adesilex G12 is available in dark beige.

Special colours can be supplied only upon request (min. 600 kg).



Mixing Adesilex G12



Installing rubber flooring with Adesilex G12



Installing rubber at the Las Palmas University, Gran Canaria

TECHNICAL DATA (typical values)		
PRODUCT IDENTIFICATION		
	component A	component B
Consistency:	thick paste	thick paste
Colour:	light brown	dark brown
Density (g/cm³):	2.40	2.30
Inflammable:	no	yes
Dry solids content (%):	96	94
Brookfield viscosity +23°C and 50% R.H. (mPa·s):	90,000 (rotor 7 - RPM 5)	50,000 (rotor 6 - RPM 5)
Storage:	Adesilex G12 is stable in storage for at least 24 months if the buckets are kept sealed. Component B “catalyst”, must be kept in a warm environment in order to avoid crystallization due to the cold. In the case of crystallization it will be necessary to warm up in a water bath before using	
Hazard classification according to EC 1999/45:	irritant, flammable	irritant, flammable, dangerous for the environment. Before using refer to the “Safety instructions for the preparation and application” paragraph and the information on the packing and Safety Data Sheet
Customs class:	3506 99 00	
APPLICATION DATA (at +23°C - 50% R.H.)		
Mixing ratio:	component A : component B = 1 : 1	
Brookfield viscosity (mPa·s):	70,000 (rotor 7 - RPM 5)	
Density of the mix (kg/m³):	2,300	
Application temperature range:	from +5°C to +30°C	
Pot life:	1 hour	
Open time:	50 minutes	
Adjustability:	60 minutes	
Initial setting time:	9 hours	
Final setting time:	10 hours	
Set to light foot traffic:	after 12-24 hours	
Ready for use:	> 3 days	
FINAL PERFORMANCE DATA		
Resistance to moisture:	excellent	
Resistance to ageing:	excellent	
Resistance to solvents and oils:	good	
Resistance to acids and to alkalis:	good	
Temperature resistance when in use:	from -20°C to +80°C	
Resistance to wheeled chairs:	very good	
Flexibility:	no	
Test of adhesion PEEL 90° in compliance with EN 1372 (N/mm):	rubber: > 3	
Heated flooring:	suitable	

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Setting time of Adesilex G12 in relation to temperature:

Temperature in °C	30	25	20	15	10	5
Time in hours	3	8	10	18	30	40

PACKAGING

The product is delivered in 20 kg (10 + 10 kg buckets kits (A+B).

STORAGE

Adesilex G12 under normal conditions and in its original unopened packaging is stable for 12 months.

Adesilex G12 that has crystallized due to accidental exposure to cold will regain its normal workability by being kept at around 35°-40°C for a few hours.

Avoid heating the tins directly with a flame, instead place them in a warm environment and immerse them in hot water. Wait for the product to regain ambient temperature before mixing the two components.

SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Adesilex G12 can produce irritation and allergic reaction if in contact with the skin in those who suffer from such a complaint. Component B can cause serious damage to the eyes.

Wear suitable protective gloves and eye protection.

Adesilex G12 is flammable and can produce adverse effects in the aquatic environment. Use only in well-ventilated areas and avoid release to the environment.

Keep away from sources of ignition - No smoking.

PRODUCT FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical applications; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

**All relevant references
for the product are available
upon request and from
www.mapei.com**