



Corques Liquid Lino (CLL)

Environmental Product Declaration and Health Care Declaration



CLL

According to ISO 14025 and EN 15804

This declaration is an environmental product declaration in accordance with ISO 14025 and EN 15804 that describes the environmental characteristics of the aforementioned product. It promotes the development of sustainable products.

Product Definition

Product Classification and description

CLL is a liquid applied resilient floorcovering. CLL is made from natural raw materials making it a preferable ecological floor covering. The key raw materials include linseed oil, which comes from the flax plant seeds, Castor oil from the castor bean or castor-oil-plant, a species of a flowering plant, recycled cork flour, cork particles and limestone. Because of the natural raw materials CLL is biodegradable.

CLL is build up in two layers and they form a crosslinked bonding during the curing process.

Range of application.

CLL is classified in accordance with EN ISO 24011 to be installed in the following use areas defined in EN ISO 10874

D
H
K

CLASS 23 DOMESTIC HEAVY
Minimum thickness 2 mm

CLASS 34 COMMERCIAL VERY HEAVY
Minimum thickness 2 mm

CLASS 43 INDUSTRIAL HEAVY
Minimum thickness 2.5 mm

Corques

Product standard

CLL has the following technical specifications:

- Meets or exceeds all technical requirements in ASTM F 2034 Standard Specification for Linoleum Sheet Flooring.
- Meets or exceeds all technical requirements in EN-ISO 24011 Specification for plain and decorative Linoleum.

TECHNICAL DATA

A

ELECTRICAL BEHAVIOR
EN 1815 • < 2 kV

e

THERMAL CONDUCTIVITY EN ISO 12524
• 0.15 W/m.K, suitable for underfloor heating • ASTM C-518-17 • 0.15 W/m.K

**9****CE NUMBER**

15 • DoP08CORQ017 • EN 13813:2002

**CLL**

Contains recycled content

G

REACTION TO FIRE EN 13501-1 • Bfl-S1 • Class 1 when tested in accordance with ASTM E-648 Critical Radiant Flux • Meets 450 or less, when tested in accordance with ASTM 662/ NFPA 258 Smoke Density

O

SLIP RESISTANCE DIN 51130 • R9 standard / R11 upon request EN • 13893 • DS: ≥ 0,30 • Meets or exceeds the industry recommendation of >0.5 for flat surfaces when tested in accordance with ASTM D-2047

Accreditation

CLL complies with the quality tested in **Indoor Air Comfort GOLD** for:

- Belgian regulation
- French regulation, A class (or A+ class for indoor Air Comfort GOLD)
- German regulation, AgBB
- Draft Lithuanian regulation
- Planned Swedish regulation
- E1 classification
- EMICODE
- GUT
- Several EU ecolabel criteria
- Several Blue Angel criteria
- Several Austrian ecolabel criteria
- LEED outside North America
- FEMB standard for sustainable office furniture
- BREEAM
- M1 only partly

CLL also complies with the regulations as specified in:

- US programs such as CDPH (used by FloorScore®), BIFMA, Cradle-to-cradle, Greenguard
- Danish Indoor Air Climate label

Delivery Status

15 kg/ 33lbs pails.

Product weight installed:

2,2 mm thickness 2,2 kg/4.84 lbs/sqm

2,5mm thickness 2,5 kg/5.50 lbs/sqm

Corques

Material Content

Component Material Availability Origin

Component	Material	Availability	Origin
Binder	Linseed oil and castor oil	Biobased crop	USA/India/ Europe
Filler	Corkflour and Cork granulates Calcium Carbonate	Biobased renewable Abundant mineral	Portugal/ Spain/ Germany
Pigment	Titanium dioxide other pigments	Limited mineral	Global
Finish	Lacquer	Biobased	Netherlands

Production of main materials**Linseed oil**

Linseed oil is obtained by pressing the seeds of the flax plant. After filtering a clear golden yellow liquid remains.



Castor oil

Castor oil is a vegetable oil obtained by pressing the seeds of the Castor oil plant (*Ricinus communis*) Castor oil is colorless to very pale. The United States Food and Drug administration has categorised Castor oil as “safe and effective”.

Corkflour and Corkgranulates

Every 9 year the stem of the Corktree is removed without cutting the tree. The Corkflour and Corkgranulates are reused Corkstoppers and residue from the cork industry.

Calcium Carbonate

An abundant mineral found in in all parts of the world as the chief substance in rocks like marble and limestones. It can be ground to varying particle sizes and is widely used as a filler.

Titanium dioxide

A white pigment produced from the mineral rutile, a naturally occurring form of titanium dioxide.

Other pigments used are mainly iron oxide based.

Lacquer

Protecshield is a waterborne biobased dispersion.

P65 List Free

Proposition 65, officially known as the Safe Drinking Water and Toxic Enforcement Act of 1986, was enacted as a ballot initiative by Californian State in November 1986.

The proposition protects the state's drinking water sources from being contaminated with chemicals known to cause cancer, birth defects or other reproductive harm, and requires businesses to inform Californians about exposures to such chemicals.

Proposition 65 requires the state to maintain and update a list of chemicals known to the state to cause cancer or reproductive toxicity.

CLL is free from the chemicals in the P65 list, in the latest version of 29th dec 2017.

RedList Free

CLL is free of ingredients mentioned in the Red List of ILFI

The International Living Future Institute (ILFI) has developed the following red list of chemicals that may not be included in materials used in construction that seeks to meet the criteria of the Living Building Challenge (LBC). According to ILFI, the list is composed of materials that should be phased out of production due to health concerns. The list is updated as new science emerges. The most recent update came in May 2014.

The LBC red list is shown directly below. This list includes both chemicals and chemical groups. In 2014, ILFI published a spreadsheet that represents the full list of chemicals, as this spreadsheet expands these chemical groups into the individual chemicals of which they are composed. As of May 2014, this spreadsheet contained 815 individual chemicals.

- Alkylphenols
- Asbestos
- Bisphenol A
- Cadmium
- Chlorinated polyethylene and chlorosulfonated polyethylene (CSPE)
- Chlorofluorocarbons (CFCs)
- Chlorobenzenes
- Chloroprene (neoprene)



- Chromium VI
- Chlorinated polyvinyl chloride
- Formaldehyde (added)
- halogenated flame retardants (HFRs)
- Hydrochlorofluorocarbons (HCFCs)
- Lead (added)
- Mercury
- Polychlorinated biphenyls
- Perfluorinated compound
- Phthalates
- Polyvinyl chloride
- Polyvinylidene chloride
- Short Chain Chlorinated paraffins
- Wood treatments containing creosote, arsenic or pentachlorophenol
- Volatile organic compounds (VOCs) in wet applied products

Production of the Floorcovering

CLL is produced in a factory. The binders are mixed with the fillers to obtain a creamy substance. After the mixing the materials are exactly measured in pails and are ready for use. The pails can come colored or uncolored. On sight the CLL is mixed with a reactive component which starts the hybrid curing of the linseed oil and castor oil.

Health Safety and Environmental Aspects during the Production

The production process is done according to the specifications in:

- ISO 14001 Environmental Management Systems
- OHSAS 18001 Occupational Health and Management Systems

Delivery

A worldwide distribution by truck, train and container ship is considered.

Production waste

During the production of the material there is no waste of materials.

Installation

Because of the specific techniques and delivery form there is no waste or loss of materials during the installation.

Health, Safety and Environmental Aspects during installation

CLL is self-adhering and no adhesives are required. Adhesives have negative effects on emission.

Cleaning and maintenance

Dry cleaning with a vacuum cleaner or a dustmob twice a week.

Wet cleaning with a singledisc machine once a month using an adequate maintenance pad without detergent or neutral cleaner.

The cleaning regime that is recommended in practice will be highly dependent on the use of the premises where the floorcovering is installed. In high traffic areas more frequent cleaning will be needed compared to areas where there is low traffic. The use of an entrance mat of at least four steps will reduce the need of cleaning frequency.

