Corques Liquid Lino (CLL)
Environmental Product Declaration and Health Care Declaration

CORQUES LIQUID LINO
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

Corques Liquid Lino is a liquid applied resilient floorcovering. Corques 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 Corques is biodegradable.

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

Range of application.
Corques is classified in accordance with EN ISO 24011 to be installed in the following use areas defined in EN ISO 10874

CLASS 23 DOMESTIC HEAVY
Minimum thickness 2 mm

CLASS 34 COMMERCIAL VERY EAVY
Minimum thickness 2 mm

CLASS 43 INDUSTRIAL HEAVY
Minimum thickness 2.5 mm

Product standard
Corques Liquid Lino 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

ELECTRICAL BEHAVIOR
EN 1815 • < 2 kV

THERMAL CONDUCTIVITY
EN ISO 12524
• 0.15 W/m.K, suitable for underfloor heating • ASTM C-518-17 • 0.15 W/m.K
Corques also complies with the regulations as specified in:

- US programs such as CDPH, BIFMA, Cradle-to-cradle, Greenguard
- Danish Indoor Air Climate label

**Delivery Status**

15 kg/ 33 lbs pails.

Product weight installed:

- 2,2 mm thickness 2,2 kg/4.84 lbs/sqm
- 2,5 mm thickness 2,5 kg/5.50 lbs/sqm

**Material Content**

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

**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.

Corques Liquid Lino is free from the chemicals in the P65 list, in the latest version of 29th Dec 2017.

**RedList Free**

Corques Liquid Lino 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
• Woodtreatments containing creosote, arsenic or pentachlorophenol
• Volatile organic compounds (VOCs) in wet applied products

Production of the Floorcovering

Corques Liquid Lino 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 Corques 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

Corques is self adhering and no adhesives are required. Adhesives have negative effects on emissions.

Cleaning and maintenance

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

Wet cleaning with a single disc 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.

Duracryl International B.V.
Eilandstraat 91
2901 BK Capelle aan den IJssel
The Netherlands

Phone +31 10 458 85 52
Website www.duracryl.com
Email info@duracryl.com