

ADCO CHEMFLOOR 121

Industrial polyurethane (cement-extended) flooring system, different colours

ADCO
Construction-
and Mining
Chemicals

adcon
www.adcon-namibia.com

adcon cc
established 1994

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technical data sheet

DESCRIPTION

ADCO Chemfloor 121 is a heavy-duty durable flooring system based on a high-performance non-solvent liquid polyurethane resin system incorporating a powder component in the form of hydraulic binders, fillers and quartzitic aggregate. The material is available as systems for installations at 3 mm, 6 mm, 9 mm or 12 mm thickness, depending on the application and severity of exposure.

The product is supplied in pre-pack form as a three-part system.

SPECIFICATION and AREAS of APPLICATION

ADCO Chemfloor 121 is specified for its following design criteria :

- durability
- resistance to wear / abrasion
- resistance to attack by chemical exposure
- high degree of toughness rendering impact resistance
- exceptional bond to sound substrates
- non-slip, non-dusting surface characteristics
- effective in elevated temperature exposure profiles
- impermeable / closed-pore structure hygienic final surface



The above product characteristics are achieved in short curing times.

ADCO Chemfloor 121 finds extensive application in industrial sectors such as :

- food processing (abattoirs, dairies, bakeries, industrial kitchens, canneries);
- liquid processing (bottling, breweries, wineries);
- chemical industries (chemical manufacture and processing, decanting stations);
- engineering sites / assembly lines.

INSTALLATION

Only suitably trained and qualified specialized contractors are able to install ADCO Chemfloor 121.

The substrate

ADCO Chemfloor 121 rapidly develops high bond strengths to the substrate. Hence the system can only be applied to structurally sound and prepared surfaces. Where ADCO Chemfloor 121 is installed onto a concrete surface, the compressive strength of the floor shall test a minimum of 25 MPa at the time of installation and shall be at least 14 days old. In addition to the strength requirement, pre-installation surface characteristics shall be achieved that render a non-dusting, keyed sound profile – this is achieved by mechanical scabbling / scarifying / diamond grinding followed by industrial vacuuming.

Where the substrate requires localized repairs, ADCO Chemfloor Mortar is applied rather than a cementitious-based repair compound.

Moisture levels of the prepared substrate surface are measured and special priming systems applied depending on the values. (Please consult the technical department of ADCON for advice.)

Mixing and placing of material : The liquid components are emptied completely into the pan mixer and mixed for 2 minutes where after the powder component is added and the system mixed for a further minute. The material is placed without delay, spread by trowel / notched trowel and de-aerated using spiked rollers. The installation of the floor overlay shall be a continuous wet-on-wet process where consecutive batches blend into each other. The workable fresh mix window is limited to 12 – 15 minutes. Material that could not be placed in this time has to be discarded.

Tools, mixers, etc can be cleaned using ADCOchem 291 – where material is not cleaned off tools, only mechanical grinding will later remove same.

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Mixing and placing of material : (cont'd...)

The reacting ADCO Chemfloor 121 material is sensitive to moisture - it is important to plan the installation operation accordingly.

Depending on ambient conditions, specifically temperature, a new ADCO Chemfloor 121 overlay can be opened for selected pedestrian traffic after about 8 hours, light traffic after 24 hours and normal use after about 4 days.

EXTRACTS OF TECHNICAL DATA

Typical results :

Compressive strength (full cure)	> 56 MPa
Flexural strength (full cure)	14 – 15.4 MPa
Tensile strength (full cure)	6 – 7 MPa
Density (wet mixed)	2320 g/L
Bond strength (full cure)	complete failure of concrete (tested to 30 MPa prepared concrete substrate)

Where ADCO Chemfloor 121 is installed to areas with UV exposure, a degree of yellowing may develop for certain colours, please consult the technical department of ADCON for advice.

Cleaning : Your ADCO Chemfloor 121 should be cleaned regularly in order to retain its appearance over extended periods of use.

Recommendations on methods and a range of cleaning products suitable for different installation environments are available from ADCON.

Safety and Storage : Handling, mixing and installation of ADCO Chemfloor 121 is advised to take place under standard safety precautions such as protective clothing, gloves and eyewear. Product shall be stored under cover, away from concrete surfaces and protected from temperature extremes exceeding the range of 6°C – 25°C.

Remember : Keep away from children, handle responsibly and consider the environment.

UPDATE

May 2017.

This supercedes all previous documentation.