ARDEX CL5

Commercial Self-levelling Topping

Features

Levelling and smoothing of floor areas

High wearing cementitious topping material for residential, commercial floors

For thickness of 3 – 5 mm in one application, base mix up to 10mm

Self-smoothing

Pumpable

Early trafficable

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ARDEX CL5

Commercial Self-levelling Topping

DESCRIPTION
ARDEX CL5 is a special formulated polymerized self-leveling topping for commercial floor areas.

ARDEX CL5 provides a smooth, flat and level surface that can be installed from 2 mm up to maximum thickness of 10 mm in a single application, it is applied at 3~5 mm normally.

FEATURES / BENEFITS
- Cement-based
- Levelling and smoothing of floor areas
- High wearing cementitious topping material for residential, commercial floors
- For thickness of 3 – 5mm in one application, base mix up to 10mm
- Self-smoothing
- Pumpable
- Early trafficable

TYPICAL APPLICATION:
Use in residential and commercial area. Use on substrates like cement render, concrete, masonry surface, ALC or light-weight board.

SURFACE PREPARATION
The surface must be hard, sound, clean and free of oil, grease, wax, latex compounds and any substance that might act as bond breaker before priming with ARDEX P51. Use the commercial degreaser to remove polish, wax, grease, oil and similar contaminating substances.

Wetted, frozen or otherwise weak concrete surface must be mechanically cleaned to support applied smoothing compound by short blasting, scarifying and grinding

All cracks in the sub-floor must be repaired to prevent damaging through the overlayment. For deeper pour and large void, mix ARDEX CL5 with well – washed and dried aggregate of 0.5 – 1.2mm to obtain the desired height

PRIMING
Priming is mandatory especially onto very absorbent sub-floors such as concrete or cement/sand screeds. Use ARDEX P51 to seal the pores, prevent air bubbles and pinholes from rising through the surface of leveling compound and also to promote excellent uniform adhesion to the substrate. With smooth, dense and non-absorbent sub-floors, it may be necessary to use ARDEX P82 Primer to ensure adequate adhesion of the subsequently applied ARDEX CL5. Apply the primer by using a spray or roller. Spread the primer across the substrate and allow it to be dry. Do not install the leveling compound until the primer is thoroughly dry

MIXING
Pour 1 bag of ARDEX CL5 powder into 4.75 – 5.25 L of clean water and mixed using a electric drill (min .500rpm) The use of ARDEX mixing buckets is recommended to reduce the incidence of unmixed powder around the bottom of the bucket.

Always add the correct measured water to a clean mixing bucket first; ARDEX CL5 powder should then be added whilst stirring slowly. Mix steadily and thoroughly until it become homogeneous and a lump-free fluid mortar is produced. Continue mixing for another minute until an even consistency is achieved. Do not over use the water

APPLICATION
Pour ARDEX CL5 onto the primed sub-floor. Use a trowel or spreader to spread the mortar completely. The mixed mortar will be self-smooth within the first 15 - 20 minutes. A 3mm layer of ARDEX CL5 will be walkable after approximately 3 hours at 30°C ; The time is also reduced where temperature and application thickness are applied to absorbent sub-floors. Apply at temperatures above10°C.

For areas that require over 10mm thickness, ARDEX CL5 must be mixed with the following:

Water Powder Dosage Ratio

ARDEX CL5	Sand	Water
1 part	1 part of 2-5mm (by weight)	10% – 12%

Mix ARDEX CL5 with 10 % - 12% of water first, followed by adding the sand at a (mixing ratio of 1 part of 2 - 5mm sand by weight) to get the semi –flow mortar.

DRYING AND HARDENING
Foot traffic are allowed after installation in 4~6 hours at 25°C/50%R.H.

COVERAGE
Approximately 1.5kg of ARDEX CL5 for powder/m^2/mm. The coverage depends on the flatness of the substrate.

PACKAGING
ARDEX CL5 is packed in multilayer paper sack incorporating a polyethylene liner- net weight 25kg.

PRODUCT LIMITATION
For internal use only. The sub-floor temperature must be a minimum of 10°C . Not suitable for asphalt and timber sub-floors that subject to heavy duty traffic areas.

STORAGE
ARDEX CL5 should be stored under the same conditions as cement; store ARDEX CL5 in cool, dry shaded warehouses at 25°c and 50% relative humidity. When stored under the correct conditions ARDEX CL5 will have a shelf life of 6 months.

FOR HIGH STRESS AREAS APPLICATIONS
Add 5.5 – 6L of diluted ARDEX E25 to 25kg of ARDEX CL5 to increase the bonding strength, better flexibility and wear – resistance in sub floor where the surface are subject to heavy duty traffic areas.

Using 5.5L dilution of ARDEX E25 mixing design:

ARDEX E25	Water	ARDEX CL5
1.5kg	3.9kg	25kg

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Using 6L dilution of ARDEX E25 mixing design:

ARDEX E25	Water	ARDEX CL5
1.7kg	4.2kg	25kg

Wear surfaces: To level and resurface concrete floors in warehouses, storage areas, indoor parking garages, or other area where heavy duty is required

CLEAN

Clean the tools with water before drying

PRECAUTIONS

Avoid contact with skin and eyes; in case of contact with the eyes, rinse immediately with plenty of water and seek medical advice; wear suitable gloves and keep the product out of the reach of children. Avoid generation of airborne dust during mixing.

TECHNICAL DATA

Appearance:	Powder
Colour:	Grey/ White
Bulk Density:	approx. 1.30kg/litre
Fresh Mortar:	approx. 2.10kg/litre
Flowing time:	20 mins
Initial Set: (ASTM C191 at 25°C)	40 – 60 mins
Final Set: (ASTM C191 at 25°C)	50 – 70 mins
Flow:	>140mm

Compressive Strength (ASTM C109)

After 1 day	> 9 N/mm^2
After 7 days	> 30 N/mm^2
After 28 days	> 40 N/mm^2

Flexural Strength (ASTM C348)

After 1 day	> 3 N/mm^2
After 7 days	> 5.5 N/mm^2
After 28 days	> 8.5 N/mm^2

Shrinkage (ASTM C531)

After 7days	< 0.03%
After 28 days	< 0.1%

Tabor Abrasion (ASTM D4060)
100 cycles, H22 wheel, 1000g load

After 28 days	< 0.5g loss

NOTE: