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# ARDEX CL 5

## High Strength Self-Smoothing Topping

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Levelling and smoothing of floors

High strength cementitious topping material for residential and commercial areas

For thickness from 3 to 10mm in one application

Protein-free

Pumpable

Early trafficable

Green Label certified



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ARDEX SINGAPORE PTE LTD  
26 Tuas Ave 4 Singapore 639376  
Telephone: +65 6861 7700  
Fax: +65 6862 3381  
Email: [sales@ardex.com.sg](mailto:sales@ardex.com.sg)  
Website: [www.ardex.com.sg](http://www.ardex.com.sg)

# ARDEX CL 5

## High Strength Self-Smoothing Topping

### DESCRIPTION

ARDEX CL 5 is a special formulated polymerized self-leveling topping for commercial and industrial floor areas.

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

For industrial application, minimum 5mm is required.

### USE

ARDEX CL 5 is used in residential and commercial area. Use on substrates like cement render, concrete, masonry surface, ALC or light-weight boards.

### BENEFITS

- Levelling and self-smoothing of floor areas
- High wearing cementitious topping material for residential, commercial and industrial floors
- For a thickness of 3–10mm in one application
- Protein-free
- Pumpable
- Early trafficable

### SURFACE PREPARATION

The substrate must be dry, clean and sound, free of dust, loose particles, grease or any other contaminants. Surfaces should be smooth and free from honeycomb cracks, protrusions or voids. Concrete surfaces should be free from laitance which, if present, should be removed by scabbling or grit blasting to produce a sound surface. After cleaning, the floor must be swept free of dust and damped down with water to satisfy the natural absorption. Pools of water must be dispersed. All joints must be raked out and filled with a stiff mix of smoothing compound.

NOTE: Floor has to be dry with moisture content < 5%. If the floor is damp through construction moisture or rising damp, use ARDEX WPM 300 Hydrepoxy.

### PRIMING

Priming is mandatory especially onto very absorbent subfloors such as concrete or cement/sand screeds. Use ARDEX P 51 to seal the pores, pre-

vent 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 P 82 Primer to ensure adequate adhesion of the subsequently applied ARDEX CL 5. 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 CL 5 powder into 4.75–5.25L of clean water and mixed using a electric drill (min. 600rpm) The use of ARDEX mixing buckets is recommended to reduce the incidence of unmixed powder around the bottom of the bucket. 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 dose the water.

### APPLICATION

Pour ARDEX CL 5 onto the dried 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 CL 5 will be walkable after approximately 2-3 hours at 30°C ; The time is also reduced where temperature and application thickness are applied to absorbent sub-floors. Apply at temperatures above 10°C. For areas that require over 10mm thickness, ARDEX CL 5 must be mixed with the following:

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

Mix ARDEX CL 5 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.

### COVERAGE

Approximately 1.5kg of ARDEX CL 5 for powder/m<sup>2</sup>/mm. The coverage depends on the flatness of the substrate.

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### LIMITATIONS

For internal use, the sub-floor temperature must be a minimum of 10°C. Not suitable for asphalt and timber subfloors that subject to heavy duty traffic areas.

For external use, please consult ARDEX technical services for further technical details and recommendations.

The colour of the floor using ARDEX CL 5 is not always uniform and consistent which is a typical feature of cementitious-based products and also depending on the application. Best results are achieved when application does not have interruptions, long pauses or the like.

### STORAGE AND SHELF LIFE

ARDEX CL 5 should be stored under the same conditions as cement; store ARDEX CL 5 in cool, dry shaded warehouses at 25°C and 50% relative humidity and away from the floor. When stored under the correct conditions, ARDEX CL 5 will have a shelf life of 6 months.

### FOR HIGH STRESS AREAS

The thickness should be minimum 5–6mm. Add 5.5–6L of diluted ARDEX E 25 to 25kg of ARDEX CL 5 to increase the bonding strength, better exibility and wear – resistance in subfloors where the surface is subject from mid-heavy duty traffic areas.

Using 5.5L dilution of ARDEX E 25 mixing design:		
ARDEX E 25	Water	ARDEX CL 5
1.5kg	4kg	25kg
Using 6L dilution of ARDEX E 25 mixing design:		
ARDEX E 25	Water	ARDEX CL 5
1.6kg	4.4kg	25kg

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

### TECHNICAL DATA

Form:	grey powder
Bulk density:	approx. 1.30kg/L
Flow life at 30°C:	approx. 20 minutes
Initial setting time:	approx. 40-60 minutes
Final setting time:	approx. 50-70 minutes
Compressive Strength	
24 hours:	≥ 9 N/mm <sup>2</sup>
7 days:	≥ 30 N/mm <sup>2</sup>
28 days:	≥ 40 N/mm <sup>2</sup>
Flexural Strength	
1 day:	≥ 3 N/mm <sup>2</sup>
7 days:	≥ 5.5 N/mm <sup>2</sup>
28 days:	≥ 8.5 N/mm <sup>2</sup>
Shrinkage	
7 days	< 0.03%
28 days	< 0.1%
Tabor Abrasion 100 cycles, H22 wheel, 1000g load	
28 days	< 0.5g loss

### SAFETY 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.

Additional information is in the Material Safety Data Sheet (MSDS) available upon request and online at [www.ardex.com.sg](http://www.ardex.com.sg)

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### Offices:

#### Malaysia:

**ARDEX MANUFACTURING SDN BHD (669180-X)**  
No. 19-1, Jalan Puteri 2/2, Bandur Puteri,  
47100, Puchong, Selangor Darul Ehsan  
Tel: +60 38060 1139 Fax: +60 38060 0719  
Email: [sales@ardex.com.sg](mailto:sales@ardex.com.sg)  
Website: [www.ardex.com.sg](http://www.ardex.com.sg)

#### Thailand:

**ARDEX (THAILAND) CO., LTD**  
969 2nd Floor Moo, 13, Soi 45, Bangna-Trad Road  
Bangkaew, Bangplee, Samutprakarn 10540 Thailand  
Tel: +66 2316 3069 Fax: +66 2316 3075  
Email: [sales@ardex.co.th](mailto:sales@ardex.co.th)  
Website: [www.ardex.co.th](http://www.ardex.co.th)

#### Vietnam:

Mobile: +84 901 351 308  
Email: [sales@ardex.com.sg](mailto:sales@ardex.com.sg)

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