



# ARDEX A 38

## Ultra Rapid Drying Cement for Internal & External Screeds

- Walkable in 3 hours
- Receives ceramic and natural stone tiles directly after only 4 hours
- Install resilient floorcoverings after 48 hours
- For bonded, unbonded and floating screeds
- After just one day, achieves the acceptable minimum compressive and tensile bending strengths attained by an ordinary cement screed after 28 days
- Can be used with underfloor heating systems
- Can be pumped for fast application



### DESCRIPTION

ARDEX A 38 has been specially formulated to produce ultra-rapid drying floor screeds for internal and external locations. With 'ARDURAPID PLUS' Technology, an ARDEX A 38 screed can be walked on just 3 hours after application and ceramic and natural stone tiles can be installed after just 4 hours irrespective of thickness, making it ideal for fast track tiling projects. Resilient floorcoverings such as carpet, vinyl and wood can be installed after 48 hours irrespective of thickness.

ARDEX A 38 achieves rapid strengthening and will pass a BRE Screed (ISCR) Test after just 6 hours. After a day, it will also exceed the acceptable minimum compressive and tensile bending strengths attained by ordinary cement screeds after 28 days.

### USE

ARDEX A 38 is used to produce bonded, unbonded and floating screeds for internal and external locations, including wet areas such as swimming pools. It can also be used for large repairs to existing cement/sand screeds. It is ideal for situations where early foot traffic and rapid hardening is required.

### THICKNESS

ARDEX A 38 should be applied to the following thicknesses as recommended by BS 8204: Part 1 or BS 5385: Part 3:

Bonded screeds: 15mm - 40mm.

Unbonded screeds: 50mm+.

Floating screeds: 75mm+ or 65mm+ in lightly loaded/domestic locations.

When used for screed repair, ARDEX A 38 can be applied to the full thickness of the existing cement/sand screed.



### ARDEX Yapı Malzemeleri Ltd. Şti.

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51140  
EN 13813:2002

51140 ARDEX A 38 Şap Karışımı,  
EN 13813:CT-40-F5

based on ARDEX A 38 mixed 1:5 with screed sand 0-8 mm (A8-C8 according to DIN 1045) and a water-to-cement-ratio of 0.42.

Any change of one of these factors makes the CE-sign inapplicable.

Cementitious screed for internal and external use

Reaction to fire	: A1 <sub>fl</sub>
Release of corrosive substances	: CT
Water permeability	: NPD
Water vapour permeability	: NPD
Compressive strength	: C40
Flexural strength	: F5
Wear resistance according to BCA	: NPD
Sound insulation	: NPD
Sound absorption	: NPD
Thermal resistance	: NPD
Chemical resistance	: NPD

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### SUBSTRATE PREPARATION

#### Bonded Screed

ARDEX A 38 can be laid as a bonded screed by firstly applying an ARDEX A 38 grouting slurry to a suitably prepared concrete base. The ARDEX A 38 screed must then be placed and compacted on the base 'fresh in fresh' whilst the grouting slurry is still wet and workable.

To prepare the grouting slurry for dry concrete in internal locations, dilute ARDEX P 51 Primer & Bonding Agent with an equal volume of water. Then add ARDEX A 38 powder mixed with an equal volume of screeding sand with the diluted ARDEX P 51 to produce a grouting slurry of a creamy consistency.

For external locations, wet areas and damp concrete, prepare the grouting slurry as above using ARDEX E 75 Additive for Bonding/Slurry Grouts diluted with an equal volume of water.

**NOTE:** The concrete surface must be prepared using suitable mechanised equipment to expose the coarse aggregate and be free from all barriers to adhesion.

#### Unbonded Screed

For unbonded screeds, it is good practice to ensure the concrete slab surface is reasonably true and flat prior to applying a proprietary damp proof/slip membrane. For uneven areas which require levelling or filling, consult the ARDEX A 46 datasheet for localised areas and the ARDEX K 60 datasheet for larger areas.

#### Floating Screed

For floating screeds, place a suitable separating or damp proof membrane over the insulation before applying the screed mortar.

**NOTE:** ARDEX A 38 is suitable for direct application to concrete bases which are insufficiently dry (above 75% RH), direct to ground or ground supported without an effective damp proof membrane, as well as areas which are subject to rising damp. It is however recommended for projects installing resilient floor finishes such as carpet, vinyl, rubber & wood that the use of a damp proof membrane is incorporated as follows to protect the finish from moisture in the underlying substrate.

### MIX PROPORTIONS

#### Bonded Screed

Mix maximum 1 part by weight of ARDEX A 38 cement to 5 parts screeding sand. The screeding sand used should be good quality 0-8mm sand and, recommended by BS 8204-1:2003, classified to EN 13139 standards. Alternatively, a fine 0 - 8mm aggregate with fines category 1 with range MP should be used. Experience has shown that sand complying with the following grading table provides a workable screeding mortar with good compactability.

Sieve Size (BS 410)	Proportion by dry mass passing nominal mesh size
10.00 mm	100%
5.00 mm	90% – 100%
2.36 mm	65% – 97%
1.18 mm	40% – 90%
600µm	24% – 75%
300µm	8% – 40%
150µm	0% – 10%
75µm	0% – 3%

Where the available screeding sand is good quality but does not have the required coarse fraction, a nominal 6mm aggregate can be mixed with the screeding sand. The ratio of screeding sand to 6mm aggregate will depend upon the actual gradings involved and the workability of the mix, however should remain within the product's normal mix ratio of 1 part by weight ARDEX A 38 cement to 5 parts sand/aggregate e.g. 1 x 25kg bag of ARDEX A 38 to 3 x 25kg bags of screeding sand and 2 x 25kg bags of nominal 6mm aggregate.

Where the screed thickness is going to be consistently greater than 50mm, a fine concrete mix can be produced for easier compaction by partially replacing some of the screeding sand with 8mm or 10mm single-sized aggregate. To achieve good workability as well as the required soundness category, the optimum mix proportions for this application should still be determined within the product's normal mix proportions and up to a maximum of 2 parts 8mm or 10mm single-sized aggregate added to 3 parts screeding sand and 1 part ARDEX A 38 cement.

**NOTE:** Any screeding sands or aggregates used should not contain lime or any other materials that could be detrimental to the workability of the screed mortar or the performance of the set and hardened screed. Do not add any other cement or lime materials to ARDEX A 38 mixes.

#### Water

Add sufficient water to obtain a workable mix. With an evenly graded, fairly dry sand, the water requirement will normally be 10-11 litres per 25kg bag of ARDEX A 38. To achieve rapid drying and rapid strength development etc. as stated, not more than 11 litres should be added per 25kg bag, including the water contained within the sand/aggregate.

### MIXING

Mix to a normal screed mortar consistency. When a sample of the mortar is squeezed in the hand, the sample should retain its shape and not crumble, and the hand should be left slightly moist.

When a sample is compacted on the base, no film of water should form on the surface.

Mixing should be performed using a pan, trough or other forced action type. Normal 'free-fall' mixers are not suitable for mixing semi-dry screed mortars. Use clean equipment and do not use other cements, lime or screed additives etc., in the mix.

### APPLICATION

The working time of the mixed mortar is approximately 1 hour at 20°C, therefore mixing, placing, compaction and trowelling off must proceed without delay. The amount of mortar mixed and the area to be screeded should be limited so that trowelling off and finishing can be completed within this time.

Where a new bay is laid against a set and hardened screed, it is recommended that day work joints are vertical and treated with the grouting slurry as described under SUBSTRATE PREPARATION.

Apply ARDEX A 38 at temperatures above 5°C

#### Application over underfloor heating systems:

When an ARDEX A 38 screed has been laid on a hot water floor system, 3 days should be allowed to elapse before heating the water up to a temperature of 25°C; this should then be maintained for a further 3 days. The maximum floor temperature should then be used and maintained for a further 4 days. Throughout this time, draughts across the screed must be avoided. The floor should then be allowed to cool down to room temperature (above 15°C) before laying floorcoverings.

**NOTE:** ARDEX A 38 screeds can be thermally loaded up to 65°C (water temperature).

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### DRYING TIME

ARDEX A 38 can be walked on just 3 hours after application and ceramic and natural stone tiles installed after just 4 hours, irrespective of screed thickness. Resilient floorcoverings such as carpet, vinyl, rubber and wood can be installed after 2 days. The screed will be fully dry after 48 hours.

### SURFACE FINISH

Before fixing ceramic tiles and quarry tiles, etc., the screed should be finished with a wood float. Prior to laying thin floorcoverings e.g. vinyl sheet, a very smooth surface may be obtained using any of the ARDEX levelling compounds which should be selected with the final floor finish in mind. Please see the relevant ARDEX datasheets for further information.

**NOTE:** Screeds are not designed as wearing surfaces, and should be given adequate protection once dry against damage, wear and contamination during subsequent building operations. Protective coverings will also minimise any curling and lipping at joints in unbonded screeds.

### PUMPING

It is possible to pump ARDEX A 38 screed mixes using a proprietary screed pump. Contact our Technical Services Department for further details.

### Technical Data According to ARDEX Quality Standards

Mixing Ratio	<b>1:4 by mass</b> 25kg ARDEX A 38, 100 kg 0-8mm sand 6-11 lt water (water and sand amount may vary depending on sand humidity)
	<b>1:5 by mass</b> 25kg ARDEX A 38, 125 kg 0-8mm sand 6-11 lt water (water and sand amount may vary depending on sand humidity)
	<b>1:6 by mass</b> 25kg ARDEX A 38, 150 kg 0-8mm sand 6-11 lt water (water and sand amount may vary depending on sand humidity)

Bulk density of mortar:	Approx. 1,0 kg/l	
Weight of fresh mortar:	Approx. 2,0 kg/l	
Material requirement:	Consumption for unit m <sup>2</sup> -cm	
	Mixing ratio	Consumption
	1:4	3,7 kg/m <sup>2</sup>
	1:5	3,1 kg/m <sup>2</sup>
	1:6	2,6 kg/m <sup>2</sup>

Working time/Pot life*:	Approx. 60 minutes
Walkability*:	After 2-3 hours

\*Values calculated under lab conditions (+20°C room temperature 65% relative humidity). Weather and environmental conditions may affect the values. Higher temperatures and low humidity decreases the time required, whereas lower temperatures and high humidity increases it.

### Technical Data According to ARDEX Quality Standards

Compressive Strength:

Karışım Oranı	Eşdeğer Sınıf	1 gün sonra	7 gün sonra	28 gün sonra
1:4	CT-C40-F5	25 N/mm <sup>2</sup>	40 N/mm <sup>2</sup>	45 N/mm <sup>2</sup>
1:5	CT-C35-F5	20 N/mm <sup>2</sup>	35 N/mm <sup>2</sup>	40 N/mm <sup>2</sup>
1:6	CT-C30-F4	15 N/mm <sup>2</sup>	30 N/mm <sup>2</sup>	35 N/mm <sup>2</sup>

Flexural Strength:

Karışım Oranı	Eşdeğer Sınıf	1 gün sonra	7 gün sonra	28 gün sonra
1:4	CT-C40-F5	4,0 N/mm <sup>2</sup>	4,5 N/mm <sup>2</sup>	5,5 N/mm <sup>2</sup>
1:5	CT-C35-F5	3,5 N/mm <sup>2</sup>	4,0 N/mm <sup>2</sup>	4,5 N/mm <sup>2</sup>
1:6	CT-C30-F4	3,0 N/mm <sup>2</sup>	3,5 N/mm <sup>2</sup>	4,0 N/mm <sup>2</sup>

Suitable for underfloor heating: Yes

Corrosion behaviour: Does not contain any substance that will cause rust on metals

EMICODE: EC 1 Plus - Very low emission

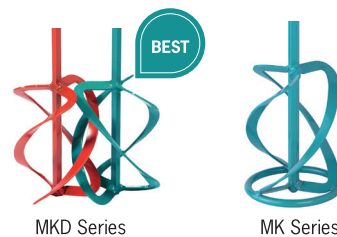
GHS/CLP classification: GHS 05, Corrosive  
Signal Word: Danger

GGVSEV/ADR classification: None

Packaging: 25 kg paper bag

Storage and shelf life: ARDEX A 38 must be stored in unopened packaging, clear of the ground in cool dry conditions and protected from excessive draught. Must be used within 12 months.

### Recommended Collomix Paddle



### Recommended automatic collomix mixing machine

