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

Passes BRE In-Situ Crushing Resistance (ISCR) Testing after just 6 hours

After just one day, achieves the acceptable minimum compressive and tensile bending strengths attained by an ordinary cement screed after 28 days

For bonded, unbonded and floating screeds

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DESCRIPTION
ARDEX A 38 has been specially formulated to produce ultra-rapid drying floor screeds for internal and external locations. With 'RAPIDRY PLUS FORMULA' 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: min. 50mm
- Floating screeds: min 65mm - 75mm

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

SURFACE 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 E100 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 ARDITEX NA 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 proofmembrane is incorporated as follows to protect the finish from moisture in the underlying substrate. For unbonded and floating screeds, install a proprietary damp proof/ slip membrane as recommended by BS 8204-1:2003+A1:2009 and BS 5385-3:2014 before laying the screed; for bonded screeds, it is recommended screeding is followed by an application of ARDEX DPM with full broadcast sand affter 4-6 hours.

ARDEX A 38

Ultra Rapid Drying Cement for Internal & External Screeds

MIX PROPORTIONS
Sand
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 BS 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%
5.00mm	90% – 100%
2.36mm	65% – 97%
1.18mm	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.

ARDEX A 38

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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.

COVERAGE
Using the recommended 1:5 mix, material requirement is approximately 0.31kg of ARDEX A 38 cement per m^2 per millimetre of screed thickness. i.e. approximately 3.2m2 at 25mm thick or 5.4m2 at 15mm thick per bag.

PACKAGING
ARDEX A 38 is packed in paper sacks incorporating a polyethylene liner – net weight 25kg.

STORAGE AND SHELF LIFE
This product must be stored in unopened packaging, clear of the ground in cool dry conditions and be protected from excessive draught. If stored correctly, as detailed above, the shelf life of this product is 12 months from the date shown on the packaging.

PRECAUTIONS
ARDEX A 38 is considered non-hazardous in normal usage. The presence of cement in the product gives an alkaline mortar, which may cause some irritation if prolonged contact with the skin takes place. Care should be taken to avoid inhalation or ingestion of dust and prevent contact with the eyes. For further information consult the relevant health and safety data sheet.

TECHNICAL DATA

Weight of fresh mortar:	approx. 2kg/litre
Working time at 20^{0}C:	approx. 60 minutes
Walkability at 20^{0}C:	approx. 3 hours

Compressive Strength using 0 - 8mm graded aggregrate	
After 1 day:	25 N/mm
After 3 days:	40 N/mm
After 28 days:	45 N/mm

Tensile Bending Strength	
	1:5
After 1 day:	4 N/mm
After 3 days:	4.5 N/mm
After 28 days:	5.5 N/mm

SOUNDNESS (BRE SCREED TEST)
Annex D and E of BS 8204-1 contains advice on the use of the In-Situ Crushing Resistance (ISCR) Test on bonded, unbonded and floating screeds. The installed ARDEX A 38 can normally be tested after 6 hours using the BRE screed tester, if required. The depth of an indentation of a correctly mixed and compacted screed should comply with the requirements of the floor finish and category of use.

MOISTURE TESTING
Should the moisture need to be determined, the specific properties and composition of an ARDEX A 38 screed mean that the moisture content cannot be determined with electric conductivity or hygrometer methods and instead the Speedy Moisture Tester (Carbide Method) must be used.

ARDEX A 38

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Please consult ARDEX Technical Support Team for further advice.

DISCLAIMER

The technical datasheets are based on the latest information and given in good faith and represent the best of our knowledge and experience at the time of printing. They are primarily offered for user's consideration and evaluation. It is the responsibility of the user to conduct their own tests to validate the suitability of the products. It is also the responsibility of the user to ensure that the products are used and handled correctly and in accordance with any applicable standards, the product instructions and recommendations and only for the uses they are intended. As we have no control over site conditions and the execution of the work, we accept no liability for any loss or damage which may rise as a result thereof. We also reserve the right to update the information at any time without prior notice to you to reflect our ongoing research and development program.

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