



ARDEX A 58

Shrinkage reduced fast screed binder

- For producing quickly usable cement screeds on insulation layers, on separating layers and in composite structures
- Early accessibility and readiness for use
- Ready for tiles and slabs after 1 day
- Ready for installation after 4 days for elastic and textile floor coverings as well as parquet flooring
- Long processing and handling time
- Swelling class SW1
- Hardening with virtually no shrinkage or tension
- Strengths up to CT-C50-F7



Area of application

For indoor and outdoor use, floors.

High-quality residential, commercial, industrial, utility and exposed screeds

- in combination
- on a separating layer
- on insulation layer
- as heating screed.

For taking up

- Tiles
- Natural stone and concrete slabs
- elastic and textile floor coverings
- Parquet flooring
- Coatings.

Ready for laying tiles, natural stone and concrete slabs after 1 day.

Ready for laying elastic and textile floor coverings and parquet flooring after 4 days.

Climatic conditions

Air temperature at the time of application and during the setting phase, as well as the temperature of the substrate and the raw materials, should be between +5°C and +25°C. Special measures must be taken in the event of temperature deviations.

Avoid drafts, water, strong solar radiation and heat during application.

Art

Ternary dimension-controlled binder system (SZ-T according to FCIÖ Data Sheet 14) with special additives for virtually shrinkage- and stress-free hardening and crystalline drying (ARDURAPID® effect) as well as for the prevention of efflorescence.

Colour: cement grey – other colours are available.

Can be pigmented up to max. 3% of the cement content with approved pigments.

Substrates

Check the substrate in accordance with relevant standards and technical data sheets.

The load-bearing capacity must be sufficient for the expected loads and stresses.

ARDEX Baustoff GmbH
Hürmer Straße 40
A-3382 Loosdorf
AUSTRIA
+43 (0) 2754/7021-0
+43 (0) 2754/2490
office@ardex.at
www.ardex.at

Manufacturer with certified
QM/UM system according to
EN ISO 9001/14001

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Impact sound insulation and thermal insulation materials must be suitable for the loads and must be determined by a specialist planner.

The substrate must be dry, solid, load-bearing and free of release agents.

The substrate temperature must be at least +5°C and no more than +25°C during processing.

For **composite screeds**, the following additional requirements **apply** to the substrate:

Any cracks must be filled with ARDEX FB casting resin. Smooth, mineral substrates and cement shells must be mechanically roughened or removed by milling and shot blasting.

Surface tensile strength for:

- Industrial and commercial use $\geq 1.5 \text{ N/mm}^2$
- Residential construction $\geq 1.0 \text{ N/mm}^2$

Composite screed

For composite screeds, the substrate must be pre-coated with ARDEX A 18 bonding slurry. The screed mortar must be worked into the freshly applied bonding slurry.

Highly absorbent substrates must be pre-wetted in good time – when applying an ARDEX system bonding slurry, the substrate should be matt damp but without puddles.

For higher loads or more critical substrates, ARDEX EP 2000 Multifunctional Epoxy Resin or ARDEX FB Casting Resin can also be used as bonding agents. When using resins as bonding agents, the substrate must not be pre-wetted. Minimum layer thickness 25 mm.

Repair work:

To create a strong bond, coat the edges of the old screed with ARDEX FB Casting Resin or ARDEX EP 2000 Multifunctional Epoxy Resin. ARDEX A 58 is applied to the fresh epoxy resin bonding agent.

Processing

During processing, all relevant standards, guidelines and data sheets, in particular ÖNORM B 3732, must be observed. Our product-specific, deviating processing recommendations must be observed.

Aggregate / rock aggregate

Screed sand of grain size 0/8 from sieve size range 3 and 4 (A8 to C8) in accordance with ÖNORM B 4710-1 must be used as aggregate. Other sieve sizes may also be suitable for certain areas of application and must be agreed with the manufacturer. To increase strength, 10–20% by volume of chippings can be added to the mortar – the chippings replace the same proportion of 0/8 screed sand.

Mixing/pumping

All standard screed mixing and delivery pumps as well as compulsory mixers are suitable for mixing the screed mortar. To achieve a homogeneous mixture, a mixing time of 2 to 3 minutes and the filling quantity recommended by the machine manufacturer should be observed.

Fill the mixing vessel with 2/3 of the required mixing water and screed sand. Then add the appropriate amount of ARDEX A 58 and screed sand. The remaining water should be added in such a quantity that a moist and easily compactable mortar

is obtained. The moisture content of the sand must be taken into account.

Maximum w/c ratio 0.40 for conventional installation with compressed air conveyor (screed pump) or compulsory mixer. A change in the w/c ratio will result in different product properties.

Remixing in a compulsory mixer results in a more homogeneous screed mortar (particularly recommended for pigmented mixtures).

Do not use any screed additives such as accelerators, retarders, etc. Do not mix with other cements.

Mixing ratios for 200 l screed pump

Strength	MV	Consumption A 58	Screed sand
CT-C50-F7	1 : 4	3 bags (75 kg) $\approx 4.0 \text{ kg/m}^2$ per cm	approx. 300 kg
CT-C45-F6	1 : 5	2.5 bags (62.5 kg) $\approx 3.3 \text{ kg/m}^2$ per cm	approx. 320 kg
CT-C40-F5	1 : 6	2 bags (50 kg) $\approx 2.9 \text{ kg/m}^2$ per cm	approx. 300 kg

Installation

Do not use at temperatures below +5°C or above +25°C. Low temperatures prolong the working time, while higher temperatures shorten it.

The working time of ARDEX A 58 mortar is approx. 120 minutes. Mixing, application, wiping and smoothing must therefore be carried out quickly.

When applying and wiping the mortar, ensure that it is evenly and well compacted across the entire cross-section.

On surfaces in draughts, on exterior surfaces and/or in low humidity, the floor screed must be protected from rapid water loss.

The surface of utility and exposed screeds must always be compacted and smoothed by machine.

ARDEX FB casting resin must be used as a bonding agent for screed connections to existing surfaces.

In case of doubt, carry out test work and create test areas.

Floor screeds on separating and insulating layers

Lay separating films without creases and with sufficient overlap at the joints.

The joint plan must be determined in coordination with ÖNORM B 2232.

The layer thickness of the floor screed (for heated floor screeds from the top edge of the pipe) must be calculated in accordance with ÖNORM B 3732 or individual manufacturer specifications. The floor screed thicknesses increase depending on the type and thickness of the insulation, the covering to be installed and the loads.

e.g. minimum layer thicknesses for live loads $\leq 2.0 \text{ kN/m}^2$:

- 35 mm for floor screeds on a separating layer
- 40 mm for floor screeds on insulation layer
- 45 mm for exposed screeds and if rigid coverings (tiles/slabs) or design fillers are laid on the floor screed.

Ready for publishing

The moisture content must be tested in accordance with the "Guideline for determining the moisture content of floor

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screeds using the CM method". If necessary, measurement specifications from other trades must be observed.

The floor is ready for covering at the following moisture contents/waiting times:

Top layer	unheated	heated
Ceramic tiles and insensitive natural stones	approx. 1 day	≤ 1.8
Sensitive natural stones in thin, medium and thick beds	approx. 4 days ≤ 2.0%	≤ 1.8
Vapour-proof and vapour-retardant floor coverings, e.g. PVC, rubber, linoleum	approx. 4 days ≤ 2.0%	≤ 1.8
Parquet flooring, wood paving, laminate	approx. 7 days according to coating manufacturer's instructions	
Coatings		

The values given are laboratory values and refer to a w/c ratio of 0.40 and screed sand with a grain size of 0/8 mm in a ratio of 1:4 with ARDEX A 58 at an ambient temperature of approx. +20°C and 65% relative humidity.

Low temperatures, increased air humidity, subsequent moisture penetration and the amount of mixing water are factors that delay the drying of the floor screed.

Floor screeds made with ARDEX A 58 can be fully loaded after 2 to 5 days, depending on the building climate conditions and the amount of water used. Heavy loads, such as machines or pallets with tiles, should not be stored on the floor screed until then. Composite screeds can be loaded and driven on after one day.

Under normal construction site conditions, ARDEX floor screeds do not reabsorb moisture after reaching their readiness for covering.

The times given refer to the normal temperature range of +20°C and relative humidity between 50–60%; higher temperatures shorten the times, lower temperatures extend them.

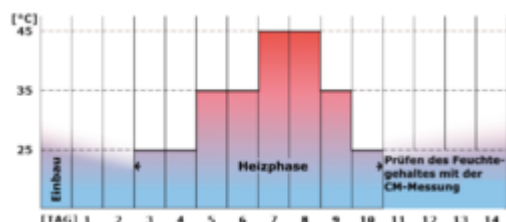
Aftercare

To improve the surface quality and strength, "especially in areas subject to high mechanical and dynamic loads and for the application of coatings," the floor screed must be covered with plastic sheets for one day after smoothing.

Coatings can be applied to floor screeds made with ARDEX A 58 in a mixing ratio of 1:4 after approx. 7 days.

Application as heating screed

When using ARDEX A 58 as a heated screed, the waiting time before laying can be significantly reduced compared to normal cements.



Heating can begin just 3 days after installation and carried out in accordance with the heating protocol.

The covering of the heating pipes must be planned professionally in accordance with the expected loads and stresses (at least 45 mm).

Planning and coordination of professional installation must be carried out in accordance with ÖNORM B 2232.

The surface temperature of the heated screed must not fall below +15°C when laying floor coverings.

Bonded lightweight fill

ARDEX A 58 can also be used to produce non-deforming, cement-bound lightweight fillings that are ready for early covering:

- Levelling unevenness, height differences and pipes under insulation layers or cement screeds
- Filling cavities, depressions and holes

For layer thicknesses from 10 to 300 mm.

Mixing ratio: 37.5 kg ARDEX A 58 : 200 l polystyrene granulate (e.g. Fischer Cyclepor Basic) : 16 l water

Working time: approx. 120 minutes at +20°C

Walkability: after approx. 12 hours

Drying time: approx. 1 day

Material requirements: approx. 1.6 kg ARDEX A 58 and 8.7 l polystyrene granulate per m²/cm layer thickness.

Processing is carried out using mixing and feeding machines (pumps). Do not use excess water.

Application as drainage screed and laying mortar

ARDEX A 58 can also be used to produce drainage screeds and laying mortars for natural stone slabs, ceramic tiles and slabs, and concrete slabs and paving slabs in outdoor areas such as terraces, balconies, staircases and paths without vehicle traffic.

For application, observe the information in the supplementary data sheet "ARDEX A 58 Quick-setting cement binder for drainage mortar".

Suitable coverings are those recommended by the covering manufacturer for the respective area of application and the respective type of covering installation.

Note

The information in our safety data sheets must be observed.
For commercial use only!

Zusatzinformation

Handle with care during processing: avoid dust formation and release into the environment.

Dispose of the container and its contents in a sealed state in accordance with applicable local/regional/national/international regulations.

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Technical data according to ARDEX quality standard

Mixing ratio approx.	Component A 75 kg powder 62.5 kg powder 50 kg powder	Component B 300 kg sand 320 kg sand 300 kg sand	Component C 20 - 30 l Water 16 - 26 l Water 12 - 23 l Water	Consistency Mixing ratio 1 : 4 Mixing ratio 1 : 5 Mixing ratio 1 : 5
Material requirement approx.	Material requirements 4.0 kg 3.3 kg 2.9 kg		Condition At a mixing ratio of 1 : 4 by weight At a mixing ratio of 1 : 5 by weight At a mixing ratio of 1 : 6 by weight	
Bulk density approx.	1,10 kg/l			
Fresh weight approx.	2,00 kg/l			
Raw density (cured)	2.1 - 2.25 kg/l			
E-modulus	27500 N/mm² (in MV 1 : 5)			
Shrinkage class	SW1 (ΔL < 0.2 mm/m) according to DIN 18560-1 / DIN EN 13892-9			
Fast screed class according to ÖNORM B 3732	SE 4			

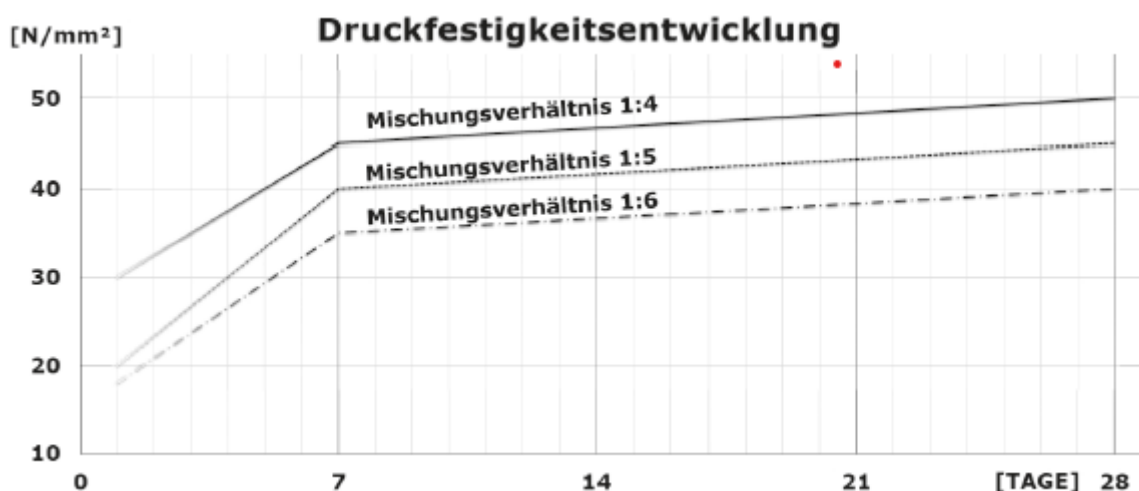
Graphene bending tensile strength



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Graphene
Compressive
strength



Surface
tensile
strength

≥ 1.5 N/mm² (after 28 days). To increase the surface strength, the floor screed should be covered with plastic sheets for one day after smoothing.

Strength classes	Mixing ratio	Strength class
	Mixing ratio 1 : 4	CT-C50-F7
	Mixing ratio 1 : 5	CT-C45-F6
	Mixing ratio 1 : 6	CT-C40-F5

Fire
behaviour

A1-fl

Application properties

Processing
time approx.

120 Minute(s)

Can be
walked on
after approx.

1 Day(s)

Coatable

7 Day(s)

Application
Ambient
conditions

+20°C

Mechanical properties

Bending tensile strength approx.	Time	Bending tensile strength approx.	Condition
	After 1 day	4 N/mm²	At a mixing ratio of 1 : 4 by weight
	After 7 days	5.5 N/mm²	At a mixing ratio of 1 : 4 by weight
	After 28 days	7 N/mm²	At a mixing ratio of 1 : 4 by weight
	After 1 day	3.5 N/mm²	At a mixing ratio of 1 : 5 by weight
	After 7 days	4.5 N/mm²	At a mixing ratio of 1 : 5 by weight
	After 28 days	6 N/mm²	At a mixing ratio of 1 : 5 by weight
	After 1 day	3 N/mm²	At a mixing ratio of 1 : 6 by weight
	After 7 days	4 N/mm²	At a mixing ratio of 1 : 6 by weight
	After 28 days	5 N/mm²	At a mixing ratio of 1 : 6 by weight

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Compressive strength approx.	Time	Compressive strength of approx.	Condition
	After 1 day	30 N/mm ²	At a mixing ratio of 1 : 4 by weight
	After 7 days	45 N/mm ²	At a mixing ratio of 1 : 4 by weight
	After 28 days	50 N/mm ²	At a mixing ratio of 1 : 4 by weight
	After 1 day	20 N/mm ²	At a mixing ratio of 1 : 5 by weight
	After 7 days	40 N/mm ²	At a mixing ratio of 1 : 5 by weight
	After 28 days	45 N/mm ²	At a mixing ratio of 1 : 5 by weight
	After 1 day	18 N/mm ²	At a mixing ratio of 1 : 6 by weight
	After 7 days	35 N/mm ²	At a mixing ratio of 1 : 6 by weight
	After 28 days	40 N/mm ²	At a mixing ratio of 1 : 6 by weight

Product details

Suitable for

underfloor heating Yes

Corrosion behaviour

Does not contain any components that promote corrosion on steel

Labelling according to GHS/CLP

See relevant safety data sheet

Labelling according to ADR

See relevant safety data sheet

EMICODE

EC 1 PLUS = very low emissions PLUS

Packaging

Sacks containing 25 kg net

Storage

Can be stored in dry rooms for approx. 12 months in the original sealed container.