ARDEX R 50 ES

Multi-Purpose Epoxy Resin

Solvent-free (100% solids)

Can be applied as paint, multilayer or self-levelling system

Various possible finishes (e.g. smooth, non-slip)

High chemical and physical resistance

Excellent adhesion

Easy to clean

Available in various RAL colours

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ARDEX R 50 ES

Multi-Purpose Epoxy Resin

DESCRIPTION

ARDEX R 50 ES is a solvent-free epoxy resin which produces a resistant and easy to clean surface. Suitable on any flooring, internal or external, where a durable and aesthetic finish is required.

In combination with 0.6-0.7mm quartz aggregate, ARDEX R 50 ES can be used to generate multilayer flooring with high levels of mechanical resistance, 2-3mm thick. In combination with 0.3-0.4mm quartz sand, ARDEX R 50 ES is applied as a highly even, self-levelling coating.

After hardening, ARDEX R 50 ES is resistant to water, chemicals, frost, and weathering.

USES

- Internal
- Flooring systems in warehouses, garages, hangars, workshops, processing and production areas, kitchens, etc.

SURFACE PREPARATION

Concrete floors must be solid, clean and free of wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminants. Mechanically clean the floor using recommended preparation methods such as shot-blasting, scarifying, diamond grinding, shaving or other suitable methods.

Vacuum the substrate. Properly treat and seal all joints or gaps in the concrete substrate where differential movement is expected (for example expansion joints). The substrate must have a tensile strength greater than 15MPa.

PRIMING

Prior to applying ARDEX R 50 ES, prime the substrate using ARDEX R 5 E or ARDEX R 4 E. Do not allow the primer to dry any longer than indicated on datasheet - otherwise it will need to be sanded and re-primed.

For multilayer systems, ARDEX R 4 E or ARDEX R 5 E can be mixed with 0.4mm aggregate at a ratio of 1:0.3-0.5. Apply with a smooth trowel or rubber squeegee, and flatten with a roller. This primer coat should be dusted with 0.6mm aggregate until saturation. Before applying the next layer, sweep the sand-covered surface and vacuum to remove unbound aggregate.

MIXING

Stir the individual components of ARDEX R 50 ES before mixing. Thoroughly mix the two components with a mixer at low speed for a minimum of 3 minutes.

Part of the mixture can be reintroduced into the hardener container to gather remaining residues in the container. The mixture which has been reintroduced into the hardener container can be returned to the mixing container and stirred for a further 30 seconds. This mixing process ensures the product's consistency and that any residual resin remaining in the containers reacts.

After the two components have been mixed, use immediately. 1kg of ARDEX R 50 ES will remain workable for 30 minutes at temperatures between 18°C and 20°C.

IMPORTANT

Towards the end of the mixture's useful life and due to its high level of reactivity, the mixture will heat up, resulting in a sharp decline in its pot life. The heat increases in proportion to the amount of resin remaining in the container.

In these cases (high temperature) do not touch the drum. In case of fumes, cover with the lid, but do not close, and using the handle, place somewhere cool and well ventilated or somewhere outdoors to prevent the accumulation of gases.

APPLICATION

1. As paint:

After mixing components A & B together, apply directly to the primes substrate with a short nap roller or brush.

2. Self-Levelling:

After mixing components A & B together, add approx. 500-700g of 0.3-0.4mm quartz sand per kg of mixture. Pour the material over the primed substrate and distribute with a notched trowel. Treat immediately with a spiked roller to allow trapped air to escape until all bubbles have been removed.

3. Multilayer

Once mixed with aggregate, spread ARDEX R 50 ES without delay over the primed floor using a rubber squeegee, and finish off the application with a medium nap roller. If 0.3- 0.4mm quartz sand is added to the mixture, use a ratio of ARDEX R 50 ES to quartz sand of 1:0.3 - 0.4. While the layer of ARDEX R 50 ES is still wet, dust with 0.6mm aggregate until saturated.

After 24 hours, sweep the sand-covered surface and vacuum to remove unbound aggregate. This process can be repeated as required until desired thickness is achieved. Apply the final coat of ARDEX R 50 ES with a short nap roller to seal the surface and encapsulate the aggregate. Do not add solvents or thinners at any stage.

LIMITATIONS

Do not use ARDEX R 50 ES where ambient and/or substrate temperatures are less than 10°C or less than 3°C above dew point. Do not use where ambient or substrate temperatures exceed 30ºC or where ambient humidity exceeds 85%. If pot life is exceeded the mixed product loses characteristics and should be disposed of.

All ARDEX products are manufactured to rigorous quality controls and procedures, however, if strict colour consistency is required, it is recommended to use products of the same batch.

Due to the epoxy nature of the product, applications may yellow if not properly protected.

CLEAN UP

Clean tools and equipment immediately after use with an applicable solvent. Hardened product will need to be removed mechanically.

Any spillage from any of the products must be removed immediately with sand, vermiculite or other inert material and collected in a suitable container for proper handling and treatment. Residues from spillage and empty containers must be dealt with in accordance with local regulations.

See product safety sheet for further information.

STORAGE

ARDEX R 50 ES can be stored for up to 12 months in its original unopened packaging. The product should be stored in a dry place between 5°C and 30°C. Keep out of icy conditions, direct sunlight, and sources of heat.

COVERAGE

As paint: 0.4kg/m²/coat

Multi-layer system: 400-500g/m²/coat

Self-levelling system: 0.5-1.6kg/m²/mm

PACKAGING

ARDEX R 50 ES consists of two components and is available in 25kg kits of various colours.

TECHNICAL DATA

Characteristics	Test Method	Result
Density		1.35kg/L
Working time @ 20°C		30 minutes
Full cure @ 20°C		7 days
Compressive strength	UNE EN 196-1	90MPa (mortar 1:1 with 0.4 sand)
Flexural strength	UNE EN 196-1	>38MPa (mortar 1:1 with 0.4 sand)
Adhesive strength	UNE EN 196-1	>3MPa

PRECAUTIONS

Harmful if swallowed or inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects.

Avoid breathing dust, fumes, gas, mist, spray, vapours. Wear protective gloves, protective clothing, eye and face protection. IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately get medical attention or call a POISONS CENTRE. Dispose of contents/ container to hazardous or special waste collection point, in accordance with local regulation. Corrosive to the respiratory tract.

Additional information is in the Safety Data Sheet at www.ardex.co.nz

Toll Free Technical Services:
1800 224 070 (Australia)
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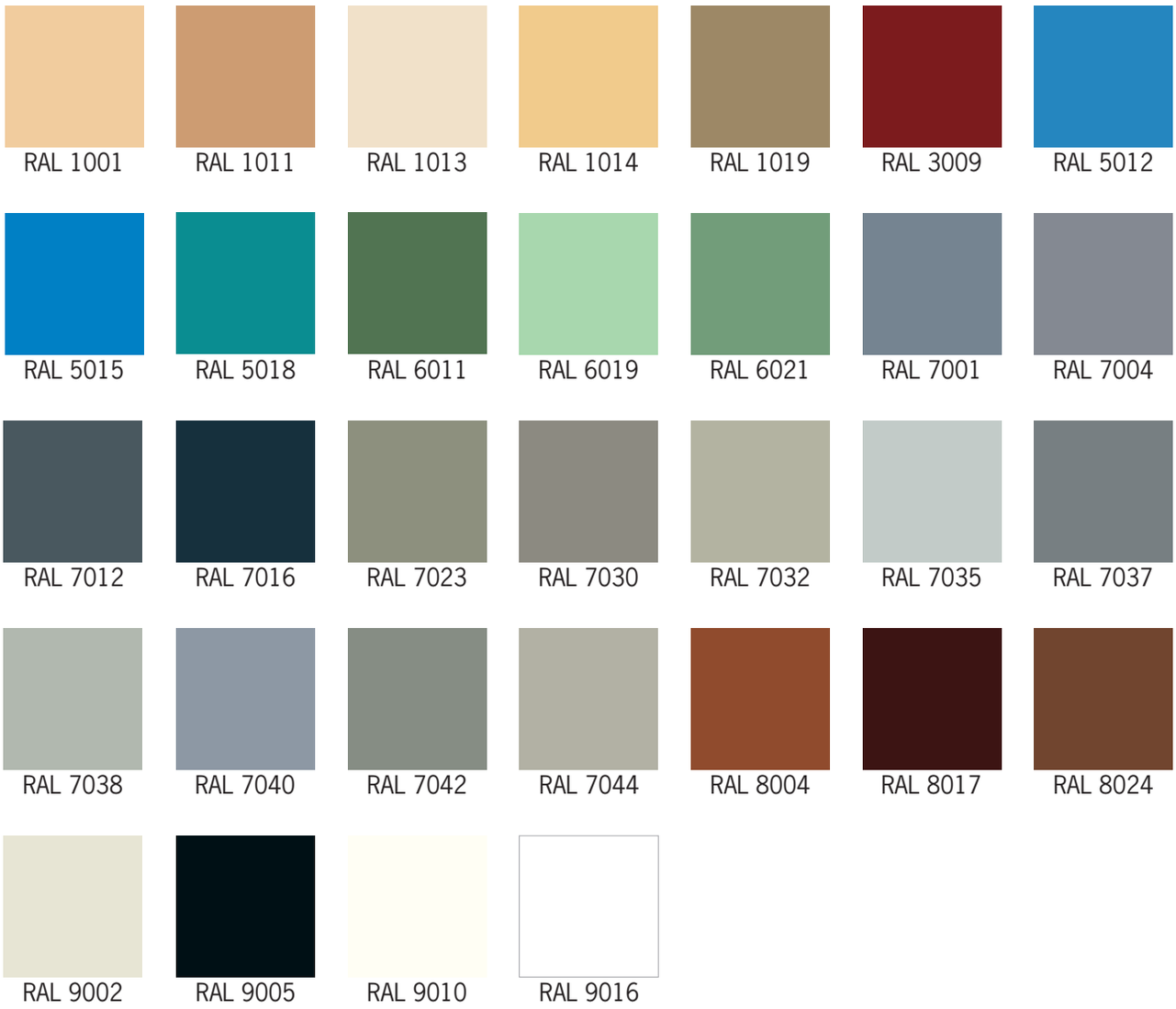
COLOUR CHART



*Indication of colour only.