



ARDEX RA 56

Low-Viscosity Rigid Hybrid Polyurethane Crack & Spall Repair

Cures stronger than concrete

Ultra Low Viscosity - Offers deep penetration into cracks

Rapid cure - Trafficable in less than 20 minutes

Ideal for spall repair when mixed with aggregate

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Low-Viscosity Rigid Hybrid Polyurethane Crack & Spall Repair

DESCRIPTION

ARDEX RA 56 is an ultra-low viscosity, 2-component hybrid polyurethane adhesive. It is a rapid curing concrete repair material used when minimal down time is crucial. Its low viscosity offers deep penetration into hairline cracks for a structural repair. The addition of dry, bagged aggregate makes a quality spall repair product that is ready for grinding and open to traffic in less than 1 hour.

INSTRUCTIONS

Always be sure the bonding surfaces are prepared in advance before starting a new cartridge or mixing product. If possible, schedule dispensing to consume an entire cartridge at one time with no interruption of the flow.

SURFACE PREPARATION

Old concrete must be clean, completely dry with no presence of moisture and profiled or textured. New concrete must be a minimum of 28 days old. Before using ARDEX RA 56, make sure that the surfaces to be bonded are sound and clean so there is no dust, dirt, grease, wax, oil, or any other contaminant present. Smooth surfaces should be mechanically roughened with a wire brush or sand paper before application.

CARTRIDGE SET-UP

Whilst preparing cartridge, keep in an upright position to prevent material from leaking from cartridge.

1. Shake cartridge vigorously for 10 seconds, then stand cartridge upright for 1 minute.
2. Insert cartridge into caulking gun. Hold cartridge at a slightly upward angle and slowly dispense a small amount of material into a disposable container until both materials flow evenly from the cartridge. (Caution: material may suddenly squirt out). Follow instructions on mixing nozzle tape and install flow control and mixing nozzle onto cartridge and secure by threading in a clockwise direction.
3. Air bubbles must be purged prior to use. Point mixing nozzle straight up and slowly apply pressure to the trigger moving the product up through the mixing nozzle until it reaches the tip. Next, point upward at 45 degrees and dispense one full stroke into a disposable container. The product is now ready to use. Use the product by dispensing with slow, steady strokes. A dry bagged aggregate may be added for larger repairs. Mix up to 3 parts aggregate to 1 part of mixed ARDEX RA 56. The use of an aggregate may extend curing times. Cartridge

is fully dispensed when plunger reaches halfway.

BULK KIT SET-UP

ARDEX RA 56 can be mixed with clean, dry, medium-grade sand or aggregate.

1. For best results have all equipment and materials ready to go. The ratio of sand to product should be approximately 2:1 by volume. Pre-measure the sand needed.
2. When using the ARDEX RA 56 bulk kit, quickly but thoroughly mix only the amount required for the repair (50% of Part A with 50% of Part B) with a small drill mixer at low speed for a maximum of 20 seconds. While one person is still mixing Part A & B, have a second person swiftly add the pre-measured dry sand until a homogenous, lump-free mortar mix is achieved. Rapidly scrape the bottom and sides of the pail to assure good mix.
3. After mixing, product must be placed within 5 minutes at 23°C. Cure time will vary depending on ambient and substrate temperature. Pour and finish trowelling immediately (do not over trowel due to fast cure of the product). Only mix the quantity that can be mixed and placed within 5 minutes; maximum of half the kit at a time.

CRACK REPAIR

Preparation

Prepare crack or spall prior to starting a cartridge or mixing bulk product.

Substrate and environment must be completely dry without any presence of moisture.

It is not necessary to open or widen a crack unless you suspect it is very deep and want to insert backer rods to control loss of product deep into the crack.

The crack should be dry and clean from any grease, wax, oil or other contaminants. Use a wire brush to remove any loose concrete or dirt and then blow away or vacuum dust.

Application

In horizontal concrete slabs, inject directly into cracks by placing the mixing nozzle tip directly over the crack.

Allow product to penetrate into the crack and top-off as needed. Clean, dry, medium-grade sand can be broadcast on top of the repair to add texture or more closely match that of the existing concrete.

For larger, deeper cracks, insert backer rods or a layer of sand to eliminate excessive loss of product. The layer of product must still be at least 12mm deep on top.

It is important to keep product flowing through the

nozzle to prevent material from hardening. If material does harden in the nozzle, simply remove the hardened nozzle from the cartridge and replace with a new nozzle and repeat the cartridge balancing process (see Cartridge Set-up).

The repair will be tack-free in 12 – 20 minutes at 23°C. Excess material may be removed shortly after application by scraping or levelling with a blade. The crack surface may be ground smooth one hour after application.

Allow material to fully cure before subjecting repaired area to any type of traffic (approximately 1 hour).

SPALL REPAIR

Preparation

A dry diamond blade or tuck point blade may be used to prepare the spall and create a clean surface for bonding. A wire brush or twisted wire wheel may be used to remove any loose concrete or dirt.

The edges must be a 90° angle to the surface to avoid a feathered edge, which would leave the edges of concrete unprotected.

Using compressed air or a vacuum, blow out or remove all dust, dirt, debris, oil and any other contaminate from the crack.

Minimum spall depth should be 12mm.

Application

ARDEX RA 56 can be mixed with clean, dry, medium-grade sand.

For best results have all equipment and materials ready to go. The ratio of sand to product should be approximately 2:1 by volume. Pre-measure the sand needed.

After mixing, product must be placed within 5 minutes at 23°C, sooner in warmer temperatures. Pour and finish trowel immediately (do not over trowel due to fast cure of product).

- Only mix the quantity that can be mixed and placed within 5 minutes.
- Repairs from a minimum of 12mm to a maximum of 75mm.

CURING

ARDEX RA 56 is ready for grinding and open to traffic in 1 hour.

APPLICATION TEMPERATURE

Substrate and ambient air temperature should be between -18°C and 45°C. When the work environment

or substrate falls below 23°C, condition the product to approximately 23°C prior to use. Cold product will react (cure) slower.

CLEAN UP

Clean tools and equipment with solvent such as white spirits, mineral turps or aerosol dewatering agent or lubricant. Do not allow urethane to harden on equipment.

COVERAGE

Coverage varies with depth of fill area.

PACKAGING

ARDEX RA 56 is sold in a 254 mL and 600mL cartridge.

SHELF LIFE

ARDEX RA 56 has a shelf life of 12 months when stored in the original unopened packaging, in a dry place at 23°C and 50% relative humidity. If recapped and stored properly, product may be reused.

PLEASE PAY ATTENTION TO THE FOLLOWING

ARDEX RA 56 is a moisture sensitive product but can be exposed to moisture once it has fully cured. Substrate must be DRY prior to use. Do not reuse mixing nozzles when working with multiple cartridges. Do not attempt to force adhesive out of a hardened mixing nozzle. Use a new mixing nozzle to avoid rupturing the set or causing improper mixing. If a leak should develop, discontinue use immediately and continue to work with a new cartridge and nozzle. Colour changes during cure from black to light grey. Product may develop a greenish tint after cure due to UV-exposure. Coating with a solvent based stain, paint or Industrial grade primer is an option for aesthetics. Always run a test area prior to full application of any coating to check for compatibility. Do not thin with solvents, as this will prevent cure.

Before any substrate preparation, installation or finishing methods relating to ARDEX product are undertaken, please be aware of any potential risks and use appropriate PPE (personal protective equipment). This may involve contacting substrate manufacturers for Safety Data Sheets.

Note

Product will change colour in exterior applications; more aesthetic results can be obtained by painting or coating.

SAFETY DATA

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This product may cause skin irritation and serious eye irritation. May cause an allergic skin reaction. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects. Repeated exposure may cause skin dryness and cracking. Avoid release into the environment. Wear protective gloves, clothing, eye and face protection. Avoid inhaling dust/fumes/gas/mist/vapours/spray. Ensure adequate ventilation during mixing and application. In case of contact with the eyes rinse with running water until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Store locked up. Check with your local Council regarding the disposal of contents and packaging. Keep out of the reach of children. Call the Poisons Information Centre on 131 126 (AUS) and 0800 764 766 (NZ) or call a doctor if you feel unwell. Additional information is in the Safety Data Sheet (SDS) at www.ardexaustralia.com.

GUARANTEE

ARDEX Australia Pty Ltd ("we" or "us") guarantees this product ("our goods") is free from manufacturing defects and will perform to any applicable specification published by us for 10 years from the date of purchase. Our liability under this guarantee is limited at our option to replacement of the product, repair of any damage to the immediate surface or area of application of the product, or compensation, in each case if we are satisfied loss or damage was due to a breach of this guarantee. This guarantee does not apply if damage or loss is due to failure to follow published instructions or any act or circumstance beyond our control, including shade variations and efflorescence. If you wish to make a claim under this guarantee you must notify us (ARDEX Australia Pty Ltd, 20 Powers Road Seven Hills NSW 2147; Toll Free: 1800 224 070; Email: technicalservices@ardexaustralia.com) and provide evidence of your purchase of the product within 30 days of any alleged loss or damage occurring. We reserve the right to ask you for satisfactory evidence of any alleged loss or damage. Any claim under this guarantee is at your cost. This guarantee is in addition to any rights or remedies you may have as a "consumer" under the Australian Consumer Law and to that extent you need to be aware that: "Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure".

TECHNICAL DATA

Colour:	Grey
Viscosity Mixed:	60 centipoise
Gel Time (+23°C):	2 - 3 minutes
Cure Time (+23°C):	60 minutes (reopen to traffic)
Tack-free Time (+23°C):	12 minutes
Compressive Strength 1 hour (neat):	34 MPa
Compressive Strength 24 hour (neat):	37 MPa
Tensile Strength:	29 MPa
Elongation:	5%
Bond Strength:	13 MPa
Shore D Hardness:	70
Adhesion to Concrete:	2 MPa
Volatile Organic Compounds (VOC):	0 g/L

Toll Free Technical Services:
1800 224 070 (Australia)
0800 227 339 (New Zealand)

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable New Zealand & Australian Standards, our instructions and recommendations and only for the uses they are intended. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program. Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may effect specific installation recommendations. The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with them.

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