



HYDA CON
Innovative chemical solutions

Technical Data Sheet

HYDAPOXY AD 19 2C
EPOXY DOT ADHESIVE

ABOUT HYDAPOXY AD 19 2C

HYDAPOXY AD 19 2C is a high-performance, two-component epoxy adhesive specifically engineered for the spot bonding of tiles, stones, and veneers on vertical and overhead surfaces. It features a thixotropic, non-sag formulation that allows application without slumping, even in higher ambient temperatures up to 35°C. When mixed in equal parts (resin and hardener), it forms a high-strength adhesive that cures into a durable bond capable of resisting shock, thermal variations, and heavy loads.

This product is suitable for both interior and exterior applications and is ideal for use with a wide variety of substrates and tile/stone types, including white or light-coloured stones due to its non-staining nature.

It complies with:

IS 15477: Type 5T

ANSI A 118.3

EN 12004: R2T / ISO 13007

SURFACE APPLICATION MATERIALS

- | | |
|--|--|
|  Reinforced concrete |  Cement render and screed |
|  Concrete masonry blocks (CMU) |  Clay bricks and masonry units |
|  Cement backer boards (check manufacturer recommendations) |  Steel and metal substrates (with proper surface preparation) |
|  Exterior-grade plywood and wood-based substrates (interior use only) | |

RECOMMENDED SURFACES / SUBSTRATES

- | | |
|--|---|
|  Structural concrete walls and columns |  Stainless steel and metal anchoring to concrete |
|  Load-bearing brick masonry |  Cement-plastered or rendered surfaces |
|  Large format stones (granite, marble, sandstone) |  Ceramic, porcelain, and vitrified tiles |
|  Precast concrete components | |

APPLICATION AREAS

- | | |
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| <ul style="list-style-type: none">  Vertical tile and stone installations (interior & exterior)  Concrete, CMU, brick, steel, cement backer board substrates  Commercial & residential wall cladding  Segmental bonding of concrete elements  High-temperature areas (up to 95°F / 35°C) | <ul style="list-style-type: none">  Spot bonding of marble, granite, and large format tiles  Overhead installations and vertical surfaces  Creative marble/stone works and repairs  Anchoring steel components to concrete  Suitable for both new construction and renovation projects |
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PRODUCT HIGHLIGHTS

- ❖ **TWO-COMPONENT SYSTEM** – Factory-proportioned 1:1 mix ratio ensures consistent performance and easy use
- ❖ **FAST PERMANENT BOND** – Sets quickly within 45–60 minutes to reduce downtime and speed up installation
- ❖ **NON-SAG FORMULA** – Thixotropic nature prevents slippage in vertical or overhead applications
- ❖ **NON-STAINING COMPOSITION** – Safe for white marble and light stones; does not discolour or bleed
- ❖ **HIGH DURABILITY** – Water, chemical, and impact resistant; ideal for extreme conditions

TECHNICAL DATA

EN / ISO DATA

PROPERTY	TEST METHOD	REQUIREMENT	HYDAPOXY AD 19 2C VALUES
7 Day Cure – Shear Adhesion Strength	ISO 13007-2 4.3.4 (EN 12003-7.3)	≥ 2 N/mm ²	16–26 N/mm ² (2320–3771 psi)
Shear Adhesion After Water Immersion	ISO 13007-2 4.3.5 (EN 12003-7.4)	≥ 2 N/mm ²	15–25 N/mm ² (2176–3626 psi)
Shear Adhesion After Thermal Shock	ISO 13007-2 4.3.8 (EN 12003-7.5)	≥ 2 N/mm ²	19–31 N/mm ² (2756–4496 psi)
Open Time (20 minutes)	ISO 13007-2 4.1 (EN 1346)	≥ 0.50 N/mm ²	4.0–4.8 N/mm ² (580–696 psi)
Vertical Slip Resistance	ISO 13007-2 4.2	≤ 0.50 mm (0.02 in)	0.20–0.40 mm (0.0079–0.0158 in)

ANSI DATA

PROPERTY	TEST METHOD	REQUIREMENT	HYDAPOXY AD 19 2C VALUES
Compressive Strength	ANSI A118.3 Clause 5.6	≥ 3500 psi (24.13 MPa)	>8151 psi (>56.21 MPa)
Tensile Strength	ANSI A118.3 Clause 5.7	≥ 1000 psi (6.90 MPa)	1801–2301 psi (12.42–15.87 MPa)
Shear Bond Strength (Tile to Tile)	ANSI A118.3 Clause 5.5	≥ 1000 psi (6.90 MPa)	551–751 psi (3.80–5.18 MPa) Tile failure observed
Shear Bond Strength (Marble to Marble)	ANSI A118.3 Clause 5.5	≥ 1000 psi (6.90 MPa)	701–901 psi (4.83–6.21 MPa) Stone failure
Shear Bond Strength (Marble to Concrete)	ANSI A118.3 Clause 5.5	≥ 1000 psi (6.90 MPa)	1201–1801 psi (8.28–12.42 MPa) Stone failure
Shear Bond Strength (Marble to Metal)	ANSI A118.3 Clause 5.5	≥ 1000 psi (6.90 MPa)	1201–1801 psi (8.28–12.42 MPa) Stone failure
Thermal Shock (Porcelain Tile & Stone)	ANSI A118.3 Clause 5.8	≥ 500 psi (3.45 MPa)	1101–1601 psi (7.59–11.04 MPa) Tile/Stone failure

IS 15477: 2019 DATA (Type 5T)

TEST DESCRIPTION	STANDARD CLAUSE	REQUIREMENT	HYDAPOXY AD 19 2C VALUES
Tensile adhesion strength (dry)	Annex A (5.1)	≥ 2.00 N/mm ²	14–16 N/mm ²
Shear adhesion strength (dry)	Annex B (5.2)	≥ 6.00 N/mm ²	11.2–13.4 N/mm ²
Heat ageing (dry)	Annex B (5.2)	≥ 3.00 N/mm ²	8–10 N/mm ²
Slip Resistance (Vertical Slip)	Annex E (5.5)	≤ 0.50 mm	0.20–0.40 mm

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION GUIDELINES

1. CLEAN & PREPARE SURFACES

- Ensure substrates are structurally sound, clean, dry, and free from dust, oil, wax, laitance, or curing compounds.
- Remove all contaminants using mechanical or chemical means.

2. REMOVE BACKINGS

- Abrasive or remove resin/fiberglass mesh or plastic films from the backs of stones to expose bare stone.

3. CHECK STONE COMPATIBILITY

- Test application on moisture-sensitive stones to avoid staining or reaction. Allow all substrates and stones to be dry before bonding.

HOW TO MIX THE ADHESIVE

1. COMPONENT COMPOSITION

HYDAPOXY AD 19 2C consists of:

- Part A – Resin
- Part B – Hardener

2. MIXING PROCESS

Combine equal parts by volume (1:1) using a slow-speed mixer (max 300 rpm) with a paddle or clean margin trowel.

3. MIX TO UNIFORM PASTE

Blend thoroughly until smooth, streak-free, and homogeneous.

4. USE WITHIN POT LIFE

Only mix as much material as can be used within 30–45 minutes at 27°C.

STEP-BY-STEP TILE APPLICATION GUIDE

NOTE: HYDAPOXY AD 19 2C is a spot bonding adhesive, not for full-bed tile installation.

- Apply adhesive in dabs or spots to the back of stone or tile.
- Press firmly onto prepared surface to ensure full contact and alignment.
- Avoid movement during setting time.
- Use spacers where required.

PRO TIPS & PRECAUTIONS

- Do not apply over moist, dusty, or contaminated surfaces.
- Clean tools before adhesive cures using xylene or industrial solvent.
- Remove rust and prime metal substrates if required.
- Do not use over bitumen, asphalt, or gypsum plasters.
- Avoid direct skin contact; wear gloves and protective gear.
- Do not fill expansion joints with adhesive—use flexible sealants.

PRODUCT SPECIFICATIONS & STORAGE GUIDELINES

AVAILABLE PACKAGING: 1 kg

MIXING RATIO: 1:1 by volume

COLOUR: Light Brown

SHELF LIFE: 12 months from date of manufacture

STORAGE CONDITIONS:

- Store in original, sealed containers
- Keep in cool, dry, ventilated area
- Protect from moisture and sunlight

GROUTING INSTRUCTIONS

- Not applicable for HYDAPOXY AD 19 2C.
- Begin grouting only after full adhesive cure.
- Use stain-resistant grouts such as HYDAPOXY 711 / 712 for optimal compatibility.

COVERAGE DETAILS

ON PLUMB SURFACES (NO DEVIATION):

- Spot thickness: approx. 1/8 inch (3 mm)
- Coverage: 1.6–1.7 m² (18–19 ft²) per 1 kg pack

ON SLIGHTLY UNEVEN SURFACES:

- Spot thickness: approx. 1/4 inch (6 mm)
- Coverage: 0.8–0.9 m² (8.7–9.5 ft²) per 1 kg pack

ON WALLS OUT OF PLUMB (UP TO 12 MM DEVIATION):

- Spot thickness: approx. 1/2 inch (12 mm)
- Coverage: 0.4–0.44 m² (4.3–4.7 ft²) per 1 kg pack

FACTORS AFFECTING COVERAGE:

- Substrate irregularity
- Spot size and number per tile
- Application method and wastage
- Ambient temperature and installer skill

SAFETY & APPLICATION GUIDELINES FOR HYDAPOXY AD 19 2C

1. PERSONAL PROTECTION

- Wear gloves, safety goggles, and a mask
- Ensure proper ventilation during use
- For professional use only

2. EMERGENCY PROCEDURES

- Skin Contact: Wash with soap and water
- Eye Contact: Flush with water for 15 minutes and seek medical help
- Inhalation: Move to fresh air
- Ingestion: Do not induce vomiting; seek immediate medical attention

3. GENERAL GUIDELINES

- Do not use under water or in submerged conditions
- Avoid use on surfaces with excessive vibration unless well supported

- Maintain substrate temperature between 4°C and 35°C

PERFORMANCE LIMITATIONS

- Do not use in submerged conditions or in swimming pools.
- Not suitable for continuous exposure to aggressive chemicals without compatibility verification.
- Avoid use on surfaces subject to excessive movement or vibration unless structural support is confirmed.
- Not designed for use in high-flex applications or where elastomeric performance is required.
- Ensure substrate temperature is between 4°C and 35°C during installation.

End of TDS