



HYDA CON
Innovative chemical solutions

Technical Data Sheet

HYDAFILLO MFG 11

ABOUT HYDAFILLO MFG 11 (SOLID)

HYDAFILLO MFG 11 (SOLID) is a high-viscosity thixotropic adhesive formulated specifically for bonding and repairing marble, onyx, and natural stones in vertical applications. Its dense consistency ensures optimal performance in hot climates and allows for reliable use on vertical surfaces without sagging. Once cured, the product hardens quickly, is easily polishable and sandable, and maintains excellent mechanical properties even in cold conditions. **HYDAFILLO MFG 11 (SOLID)** exhibits minimal shrinkage and offers strong adhesion across a wide variety of natural and engineered stones. It is formulated with low styrene content and boasts outstanding shelf life stability.

The product complies with standard application safety practices and is designed for professional use in construction, restoration, and decorative stonework. Its paste form allows for color customization using oxides or coloring pastes before hardener addition.

SURFACE APPLICATION MATERIALS

- Natural & Engineered Stones
- Onyx and Marble
- Stone Cladding and Panels
- Engineered Stone Surfaces

RECOMMENDED SURFACES / SUBSTRATES

- Vertical and horizontal stone installations
- Polished marble, onyx, and stone surfaces
- Indoor and exterior natural stone assemblies
- Heat-exposed or cold-climate applications

APPLICATION AREAS

- Vertical joint bonding and stone repairs
- Marble and onyx facades or panels
- Cladding works and stone tiles
- Stone craft and restoration jobs

PRODUCT HIGHLIGHTS

- ❖ **HIGH VISCOSITY** – Excellent vertical hold and non-drip formulation
- ❖ **FAST CURING** – Tacky-free in 25-30 minutes; sandable and polishable shortly after
- ❖ **SUITABLE FOR HOT CLIMATES** – Performs reliably in high temperatures
- ❖ **LOW SHRINKAGE** – Maintains volume and shape post-curing
- ❖ **COLD WEATHER REACTIVITY** – Cures effectively even at 0°C

- ❖ **GOOD ADHESION** – Bonds well with both natural and engineered stones
- ❖ **COLOR-CUSTOMIZABLE** – Compatible with oxide and paste-based pigments
- ❖ **LOW STYRENE** – Safer working environment and reduced odor

TECHNICAL DETAILS

PROPERTY	HYDAFILLO MFG 11 (SOLID) VALUE
Viscosity (25°C, 20 rpm) (ASTM D2196)	Thixotropic paste
Density at 25°C	1.85 – 1.92 g/cm ³
Appearance	Coloured paste
Mix Ratio (Glue:Hardener)	100:2–3 by weight
Gel Time at 25°C (bulk)	4–5 minutes
Tacky-Free Time (thin layer)	25–30 minutes
Suggested Working Time at 25°C	60–80 minutes
Minimum Reaction Temperature	0°C
Temperature Range (After Hardening)	0°C to +110°C
Shelf Life (18–25°C)	12 months

MECHANICAL PROPERTIES

TEST TYPE	STANDARD	RESULT
Ultimate Tensile Stress	ASTM D638	50 MPa
Extensibility	ASTM D638	>2%
Tensile Modulus	ASTM D638	4000 MPa
Flexural Strength	ASTM D790	110 MPa
Adhesion Force (2 hrs)	ASTM D4541	4 MPa (Botticino Marble, 25°C)
Adhesion Force (24 hrs)	ASTM D4541	5.4 MPa (Botticino Marble, 25°C)

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION GUIDELINES

Ensure the marble or stone surface is dry, clean, and free from dust.

1. Use only clean tools to extract the required quantity of glue.
2. Add 2–3% by weight of paste catalyst to the glue.
3. Mix thoroughly and energetically to achieve a consistent blend.
4. Apply the mixture immediately after preparation.
5. Do not return unused glue to the original container.
6. For color adjustments, add coloring paste or metal oxides before the catalyst. Match the color, then add catalyst.
7. Avoid excessive use of colorants as it may affect final properties.
8. Close all tins tightly after use and keep away from direct sunlight.

TOOL & EQUIPMENT CARE

- ❖ Clean tools immediately after use to prevent hardening.
- ❖ Avoid prolonged air exposure of glue or catalyst during handling.
- ❖ Do not contaminate original containers with unused product.
- ❖ Store both glue and catalyst in sealed containers after every use.

PRO TIPS & PRECAUTIONS

- ✓ Always use protective gloves and safety goggles while handling.
- ✓ Read the Safety Data Sheet (SDS) carefully before use.
- ✓ Avoid heat, humidity, and sunlight exposure during storage.
- ✓ Do not ingest or allow extended skin contact.
- ✓ Dispose of containers responsibly. Do not reuse empty tins.

PRODUCT SPECIFICATIONS & STORAGE GUIDELINES

AVAILABLE PACKAGING

- Supplied in tins (glue and hardener packaged separately).
- Suitable for manual mixing and application.

SHELF LIFE

- Minimum 12 months when stored in original, unopened containers at 18–25°C.
- Maintain cool and dry storage conditions.

STORAGE LIFE

- Keep products away from heat sources and direct sunlight.
- Ensure containers are properly sealed after use to maintain shelf life.

SAFETY & APPLICATION GUIDELINES FOR HYDAFILLO MFG 11 (SOLID)

1. PERSONAL PROTECTION

Wear gloves, goggles, and face protection during handling and application.

2. EMERGENCY PROCEDURES

1. **Skin Contact:** Wash affected area with water and soap.
2. **Eye Contact:** Rinse immediately with clean water and seek medical help.
3. **Inhalation:** Move to a well-ventilated area; consult a physician if symptoms occur.

3. DISPOSAL

1. Do not dispose in open environment.
2. Follow local disposal regulations for chemical materials.

MAINTENANCE GUIDELINES

- Store the product in optimal conditions (18–25°C) for performance integrity.
- Prevent cross-contamination of glue and catalyst.
- Always follow the proper ratio and mixing instructions.

PERFORMANCE LIMITATIONS

- Not suitable for wet or contaminated substrates.
- Avoid use on copper, brass, or PVC-based parts.
- Conduct a patch test before full-scale application.
- Performance may be influenced by ambient temperature and humidity.

ABOUT HYDAFILLO MFG 11 (LIQUID)

HYDAFIX HGP 01 (LIQUID) is a high-viscosity adhesive specifically formulated for bonding and fixing marble, onyx, and natural stone on horizontal surfaces. The glue is highly polishable and grindable once hardened, offering good performance even in cold climates due to its fast reactivity. It also features low shrinkage, strong adhesion to various stones, and low styrene content, making it safer for indoor use. The product offers excellent shelf life, ensuring reliable performance over extended storage.

SURFACE APPLICATION MATERIALS

- Natural Stone Panels
- Onyx ,Marble and Stones
- Indoor horizontal applications
- Horizontal fixing, bonding & repair

RECOMMENDED SURFACES / SUBSTRATES

- Horizontal bonding & fixing
- Clean and dry natural stones
- Indoor stone surfaces
- Marble, Onyx, and similar materials

APPLICATION AREAS

- Horizontal stone installation
- Stone bonding and restoration
- Marble flooring or panel installations
- Indoor onyx repairs, stone fillers

PRODUCT HIGHLIGHTS

- ❖ **HIGH VISCOSITY** – Ideal for strong horizontal adhesion
- ❖ **FAST CURING** – Gels in 3–4 minutes, tack-free in 15–20 minutes
- ❖ **EASILY POLISHABLE** – Grindable and polishable after hardening
- ❖ **LOW SHRINKAGE** – Maintains volume and shape post-curing
- ❖ **COLD WEATHER REACTIVITY** – Effective even at 0°C
- ❖ **STRONG ADHESION** – Bonds to a variety of natural stones
- ❖ **COLOR-CUSTOMIZABLE** – Mixable with coloring pastes/oxides
- ❖ **LOW STYRENE** – Lower emissions and safer handling

TECHNICAL DETAILS

PROPERTY	HYDAFIX HGP 01 (LIQUID) VALUE
Viscosity (25°C, 20 rpm)	15,000–19,000 cps (ASTM D2196)
Density at 25°C	1.7 g/cm ³
Appearance	Coloured liquid
Mix Ratio (Glue:Hardener)	100:2–3 by weight
Gel Time at 25°C (bulk)	3–4 minutes
Tacky-Free Time (thin layer)	15–20 minutes
Suggested Working Time at 25°C	60–80 minutes
Minimum Reaction Temperature	0°C
Temperature Range After Hardening	0°C to +110°C
Shelf Life	6 months at 25°C

MECHANICAL PROPERTIES

TEST TYPE	STANDARD	RESULT
Ultimate Tensile Stress	ASTM D638	50 MPa
Extensibility	ASTM D638	>2%
Tensile Modulus	ASTM D638	4000 MPa
Flexural Strength	ASTM D790	110 MPa
Adhesion Force (2 hrs)	ASTM D4541	4.0 MPa (on Botticino Marble at 25°C)
Adhesion Force (24 hrs)	ASTM D4541	5.5 MPa (on Botticino Marble at 25°C)

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION GUIDELINES

1. Ensure stone is dry, clean, and dust-free.
2. Use only the required quantity of glue.
3. Add 2–3% paste catalyst by weight.
4. Stir thoroughly to mix uniformly.
5. Apply the glue immediately.
6. Do not return unused glue to the container.
7. For color adjustment, add coloring paste or metal oxides before the catalyst, match the hue, then add catalyst.
8. Excess colorants may affect final properties—use cautiously.
9. Keep tins tightly closed after use.
10. Store glue and catalyst away from sunlight.

TOOL & EQUIPMENT CARE

- ❖ Clean tools immediately after use.
- ❖ Avoid prolonged air exposure to glue or catalyst.
- ❖ Prevent contamination of containers with mixed or unused product.
- ❖ Store glue and catalyst sealed after every use.

PRO TIPS & PRECAUTIONS

- ✓ Clean tools immediately after use.
- ✓ Avoid prolonged air exposure to glue or catalyst.
- ✓ Prevent contamination of containers with mixed or unused product.
- ✓ Store glue and catalyst sealed after every use.

PRODUCT SPECIFICATIONS & STORAGE GUIDELINES

AVAILABLE PACKAGING

- Available in 1L, 4L, and 17L tins
- Manual mixing and application.

SHELF LIFE

- Minimum **6 months** when stored in original unopened containers between **18–25°C**
- Protect from heat, sunlight, and humidity.

STORAGE LIFE

- Keep products away from heat sources and direct sunlight.
- Ensure containers are properly sealed after use to maintain shelf life.

SAFETY & APPLICATION GUIDELINES FOR HYDAFILLO MFG 11 (LIQUID)

1. PERSONAL PROTECTION

Wear gloves, goggles, and face protection during handling and application.

2. EMERGENCY PROCEDURES

1. **Skin Contact:** Wash affected area with water and soap.
2. **Eye Contact:** Rinse immediately with clean water and seek medical help.
3. **Inhalation:** Move to a well-ventilated area; consult a physician if symptoms occur.

3. DISPOSAL

1. Do not dispose in open environment.
2. Follow local disposal regulations for chemical materials.

MAINTENANCE GUIDELINES

- Store products in cool, dry conditions (18–25°C).
- Always seal containers tightly.
- Avoid contamination between glue and catalyst.
- Follow proper ratio and mixing guidelines.

PERFORMANCE LIMITATIONS

- Not suitable for wet, oily, or dusty substrates.
- Avoid application on copper, brass, or PVC components.
- Test on a small patch before full application.
- Performance may vary with ambient temperature and humidity.

End of TDS