

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

AQUASTOP Fast serves as a 2:1, 100% solids, 0 VOC, two-component epoxy resin-based primer that relies on phenolic amine chemistry. It's specifically engineered as a moisture barrier for concrete floors with high residual moisture before installing floor coverings, coatings, or parquet (up to 25 lbs./1000ft²/24 hr). This primer is also effective on calcium sulphate-based screeds with slightly higher residual moisture and can be used on absorbent, non-absorbent, and smooth surfaces for both indoor and outdoor applications. Ground-level concrete slabs emit invisible moisture vapor. The acceptable moisture emissions for concrete are 3 lb./1000ft² over 24 hours (<4%) based on a calcium chloride test. Additionally, a relative humidity (RH) test can gauge moisture vapor; RH test results should be below 85% per ASTM F2170. Exceeding this humidity level can lead to blistering and delamination of coatings. Performing a calcium chloride or relative humidity test helps determine concrete moisture levels. If RH test levels exceed 85% or calcium chloride levels are over 3 lbs., the **AQUASTOP Fast** concrete moisture vapor control system should be applied before the coating system.

SAFETY MEASURES

Prioritizing safety during the handling of our product is paramount. To prevent skin contact, as some individuals may exhibit allergic reactions to the materials used, we strongly advocate the use of protective gloves, eyewear, appropriate attire, and ensuring proper ventilation. For comprehensive insights and guidance on the safe handling, storage, and disposal of chemical products, we urge you to consult the latest Safety Data Sheet (SDS) for **AQUASTOP Fast**. This resource contains essential physical, ecological, toxicological, and other safety-related data.

- **KEEP OUT OF REACH OF CHILDREN**
- **KEEP FROM FREEZING CONDITIONS**
- **INTENDED FOR INDUSTRIAL USE ONLY**

Disclaimer : Our recommendations and information pertaining to the application and utilization of our products are based on our extensive knowledge and experience, provided in utmost good faith. Nevertheless, the actual variances in materials, differences in substrates, and on-site conditions may have implications on the product's performance. Consequently, no warranty or liability can be inferred from this information or any recommendations. Users bear the responsibility of conducting their product testing tailored to their specific application and purpose. We strongly emphasize respecting the proprietary rights of third parties. All orders are subject to our prevailing terms of sale and delivery. For the most recent local product Technical Data Sheet related to the specific product, please don't hesitate to request it.

CARACTERISTICS

- Made from 100% solids.
- Resistant to chemical loadings
- Good penetration
- Can be applied to almost all substrates
- Grip promoting
- Suitable for application on subfloor heating systems.
- Resistant to bacteria and moisture
- Exceeds ASTM F3010 standards
- 0 VOC
- Suitable on damp substrates
- High sealing function
- For increased residual moisture and single-layer application
- Magnesite screeds
- Old sealed/coated surfaces
- Impermeable and seamless.
- Up to 25 lbs./1000ft²/24 hr.

TYPICAL USAGE

When the moisture content of the concrete surpasses 4% or reaches 3 lb./1000ft² over 24 hours.

TESTING

Not all surfaces are equal. It's advisable to conduct a sample area test prior to beginning the project. This test should also be performed on any existing coatings or substrate to identify any potential contaminants or risk of delamination.

PHYSICAL PROPERTIES

As a primer on substrates with high moisture residual

- Up to 10 wt.-% on concrete
- Up to 6 wt.-% on heated concrete (kiln drying testing necessary)
- Up to 5 CM-% on unheated cement screed
- Up to 3 CM-% on cement screed with floor heating
- Up to 0,8 CM-% on unheated calcium sulphate screeds
- Up to 0,5 CM-% on calcium sulphate screeds with floor heating

As a primer to improve adhesion on smooth and sound substrates

As a protective membrane against moisture out of auxiliary products by substrates sensitive to moisture

Vapor Permeance @ 20mils thickness ≤ 0.1% perm. ASTM E96
MVER/RH @ 20 mil thickness up to 25 lb./24 hr./1000ft²/24 hr.
ASTM F1869

Note: Sanding between coats is recommended

PACKAGING

The AQUASTOP FAST consists of Resin Part A and Part B Hardener.

Properties	Data	
	Part A	Part B
3 Gallon Kit	7.56 L	3.78 L
Volumetric Ratio	2A:1B	
Solids Content	100%	
*Coverage	80 ft ² /Gallon – 240 ft. Kit	
Application Temperature	32-90°F (0-32°C)	
Min Substrate Temperature	32°F (0°C)	
Max Substrate Temperature	86°F (30°C)	
Thinner	Not required	
**Drying / Curing Time		
Pot Life @ 21oC (70oF)	3-5 minutes	
Working Time	10-15 minutes	
Tack Free	45 minutes @ 21°C (70°F)	
Pedestrian	12 hours @ 21°C (70°F)	
Traffic	24 hours @ 21°C (70°F)	
Max Recoat Time	3 hours @ 21°C (70°F) (Shore D 83)	
Thickness	20 mils	
Viscosity (A+B) @ 70°F / 21°C	4,995 cps	
Shelf Life	18 months	
USDA Food & Beverage & CFIA	Meets the requirements	
LEED V4.	Compliant	

PROPERTIES

Properties	Value	Reference
Compressive Strength	11,000 psi	ASTM C695
Flexural Strength	13,900 psi	ASTM D790
Tensile Strength	9,000 psi	ASTM D638
Bond to concrete	450 psi	ASTM D4541
	Concrete fails at this point	
Taber Abrasion	75-80 Mgs	ASTM D4060
Flammability	Self-Extinguishing	ASTM D635
Hardness, Shore D	>88	ASTM D2240
Flash Point	>200°F (93°C)	ASTM D93

SUITABLE SUBSTRATES

- Concrete
- Cement and rapid cement screeds

- Calcium sulphate-based screeds.
- Old substrates such as ceramic tiles, natural stones, and terrazzo
- Magnesite screeds

RECOMMENDED USES

- Concrete Surfaces
- Decorative Chips/Flakes
- Decorative Quartz
- Metallic Coating System
- High/Thin Build Systems
- Mortars
- Cementitious Overlays
- Polymeric Flooring

REQUIREMENTS OF SUBSTRATE

- Ensure sufficient dryness, strength, load-bearing capacity, flatness, and dimensional stability.
- Do not exceed the recommended maximum residual moisture level.
- Ensure surfaces are free from adhesion-reducing residues like dust, dirt, oil, and loose particles.
- Eliminate separation layers, sinter layers, and similar contaminants using appropriate methods such as sanding, brushing, abrasive blast cleaning, milling, or thorough cleaning.
- Completely remove old adhesive residues and leveling layers lacking sufficient hardness using suitable mechanical methods.
- Water-soluble adhesive layers, like sulphite waste adhesives, must be mechanically eliminated.
- Old water-resistant adhesives should be mechanically removed as much as possible.
- For effective moisture barrier application, all expandable or non-water-resistant layers must be entirely removed.
- Old floors, such as ceramic tiles, require thorough cleaning and sanding.
- Unheated concrete substrates should be at least 6 weeks old.
- Heated concrete substrates must be at least 3 months old and have already undergone heating.
- Concrete substrates may have some moisture present but should be free of puddles.
- Smooth and dense concrete substrates should be prepared with a coarse surface texture (e.g., Diamond grinding or Shot blasting) to achieve a profile of CSP3-4.
- Adhere to the requirements outlined in the applicable standards, guidelines, and data sheets.

APPLICATION & CONSUMPTION

ROLLER APPLICATION

1ST LAYER:

Approx. 300 g/m² (7.12 lb/ft²) > 23.56ft²/L

ADDITIONAL LAYER:

Approx. 200 g/m² (4.75 lb/ft²)

QUARTZ SAND (0.2 – 0.8 mm)

approx. 3-4 kg/m² (71-95 lb/ft²)

Toothed trowel application (single-layer, toothing TKB B2)

Approx. 500 g/m² (11.87 lb/ft²).

The amount applied varies based on the roughness depth and porosity of the subfloor, and it also differs according to the material type, subfloor temperature, and the applicator used.

Lower temperatures increase viscosity, leading to higher material consumption.

- The surface should be thoroughly cleaned and free from any contaminants such as grease, oil, paint, curing agents, dust, loose coatings, laitance, or any other substances that could hinder proper adhesion.
- Profiled – Mechanically prepared to obtain a CSP2-4

RECOMMENDED METHOD OF APPLICATION

GENERAL

- Mix the resin component (2:A) thoroughly with the hardener component (1:B) until the mixture is homogenous and without streaks.
- Combine the parts using a Drill mixer and Heli-mixing paddle for 3 (three) minutes.
- Repot the mixed material and briefly mix again.
- Mix small amounts according to the specified volume.
- The material is immediately ready for use after blending the base and activator; there's no need for induction time. Avoid mixing more than can be used within the working time. Discard any material that has started to set (thicken) as it cannot be satisfactorily used.
- Apply the coat with a flat or notched squeegee with EPDM rubber blade and a 10mm microfiber roller evenly onto the clean substrate in a cross coat pattern. Spread the material to achieve a uniform thickness.
- The second coat should be applied after allowing the appropriate drying time for the first coat.
- For a two-layer application, ensure a minimum consumption of 500 g/m² (11.87 lb/ft²).
- During the fresh phase of the material, excess sanding with clean, dry QUARTZ SAND (0.2-0.8 mm) is recommended. Only expose as much surface as can be sanded during the wet phase.
- After a minimum of 12 hours, or after hardening, remove excess sand. Follow up by vacuum cleaning with an efficient industrial vacuum cleaner.
- AQUASTOP FAST does not serve as a substitute for moisture protection in accordance with standard constructions.

TOOTHED TROWEL APPLICATION

- Utilize a toothed trowel type TKB B2 for the application of a single layer.
- Ensure a smooth and consistent coat, avoiding any imperfections.
- Apply within a 3-hour timeframe to facilitate adhesion for subsequent layers of leveling compound.

APPLICATION AS A BONDING AGENT ON NON-ABSORBENT SUBSTRATES

Single-layer application with roller is insufficient.

- Clean the subfloor thoroughly and then abrade it.
- Use a suitable tool, such as a notched squeegee or roller, to apply the product evenly onto the clean and dry substrate.

STORAGE

Keep it in cool, dry, and frost-free conditions.
(The ideal storage temperature is 18-20°C/60-68°F). Bring it up to

room temperature before use.

It has a storage life of 12 months when kept in its closed, sealed original packaging.

DISPOSAL

Mix any excess material (both A and B components) and let it cure. The cured product can be disposed of without any restrictions. Store any uncured materials in a suitable and sealed container and dispose of them following provincial, state, municipal, and/or federal regulations.

GISCODE

RE 1 - Solvent-free sensitising epoxy resin products.

CLEANING

Immediately clean tools after use with a solvent-based cleaner. Wear appropriate personal protective equipment as necessary. For more information, refer to the safety data sheet.

LIMITATIONS

- Product should be used immediately after mixing.
 - Requires ICRI CSP 3 This product requires proper surface profile to perform as expected. Substrate must be mechanically profiled (ASTM 4259-83), clean, sound, and dry.
 - Do not use product that has begun to cure.
 - Do not mix product longer than three minutes.
 - Over mixing will initiate the curing process prematurely.
 - Do not use in low-temps.
 - Do not use material that has crystallized.
 - Do not use over oil-based products.
 - If applied at low temperature, the product might not cure properly.
- We strongly recommend performing tests prior using the product.
- Overheating the product could also create an exothermic reaction.