

1. Product Name

HydroPhase[®] C150 Leveling Cement Concentrate

2. Manufacturer

Formulated Materials, LLC
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3. Product Description

HydroPhase[®] C150 Leveling Cement Concentrate is a high- performance hydraulic cement underlayment engineered for precision and efficiency. Designed to eliminate the need for mechanical surface preparation, its zero-shrinkage formula enables a simple clean, prime, and pour installation, reducing labor time and costs while delivering a superior smooth finish.

HydroPhase[®] C150 is mixed and applied using manufacturer-approved, locally sourced sand, optimizing material costs without compromising performance. Its advanced formulation ensures exceptional flowability when wet for easy placement and rock-solid durability when dry, making it ideal for demanding construction applications. With a proprietary cement composition, HydroPhase[®] C150 provides consistent, worry- free performance across a wide range of project conditions.

Key Features

- Engineered blend containing polymer-modified hydraulic cements.
- Fast Setting; light trade traffic in 4 hours, normal traffic in 24 hours.
- Zero-Shrink Formula – no mechanical prep required.
- Superior leveling properties with minimal working of the material.
- Surface is dense, smooth, abrasion and crack resistant.
- Ideal for out-of-level, old, or damaged concrete substrates.
- Compressive strength achieves 5000 psi in 28 days.
- Pour 1/8" – 1-1/2" depths in a single pour.
- Most applications require only priming before pouring.

Suitable Substrates

- Fully cured concrete.
- Existing concrete.
- Wood.
- Structurally sound and properly primed substrates meeting L/360 deflection criteria.
- 60 psi EPS board (Contact HydroPhase[®] for installation bulletin).
- All Treadstone[®] Sound Attenuation Mats.



Recommended Applications

- Institutional buildings.
- High-rise residential.
- Commercial office spaces.
- Retail spaces.
- Single-family homes.
- Multifamily renovations.
- Renovations of old wood frame or concrete structures.

Product Composition

Proprietary hydraulic cement technology.

Product Limitations

- Do not exceed 1.5" lift per pour without consulting Formulated Materials.
- Do not install at temperatures below 40° F.
- Mechanical profiling is not required in foot traffic or light rubber wheeled traffic use.
- Surface profile is required when installing in areas with heavy traffic or loading over the surface.
- A moisture vapor barrier is required for installations over crawl spaces or high-MVER slabs.
- Not for exterior use or areas with long-term water exposure.
- Hydrophase C150 is not a finished floor; a floor covering must be installed.
- Extreme humidity or temperature fluctuations during curing may affect performance.
- Limitations not to be construed as all inclusive.

Packaging

- 50 lb. bags / 40 or 70 bags per pallet / 2,960 lb. SuperSacks.

4. Technical Data

Applicable Standards

ASTM Test	Standard
C109M	Standard Test Methods for Compressive Strength of Hydraulic Cement Mortars
F710	Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring

Technical Chart

Property	Test Method	Results
Appearance		Dry Powder
Color		Grey
Flammability	ASTM E84	Flame Spread: 0 Fuel Contribution: 0 Smoke Density: 0
Flow		Excellent
Sand per 50# Bag		50#
Water per 50# Bag		9.75 - 10.25 Qt.
Yield with sand (100 lbs mixed material)		46 – 48 sq. ft. @ 1/4" depth
Dry Density		110 – 120 lbs. per cu. ft.
Compressive Strength	ASTM C109M	24 hr. > 2,000 psi 7 day > 3,500 psi 28 day > 4,500 psi
Recommended Depths		1/8" – 1.5" in a Single Pour

Environmental Considerations

Formulated Materials is dedicated to environmental responsibility in product development and manufacturing processes. When used per applicable guidelines, this product may contribute to LEED® certification.

5. Instructions

General Surface Prep

Ensure the surface is clean, dry and structurally sound. Repair any cracks, spalling, or unstable areas. Remove dust, dirt, oil, grease, and contaminants. Use mechanical methods (grinding, sanding) if needed. Verify moisture levels meet product requirements. Address excessive moisture if necessary. Apply primer as specified and allow it to dry thoroughly. Maintain recommended temperature and humidity. Avoid extreme conditions. Perform a final check to clear debris and confirm the surface meets all preparation guidelines before application.

Installation of Product

Always read the Safety Data Sheet (SDS) for full precautionary instructions before use.

Tools Required:

- Mixing station with calibrated measuring equipment
- Clean water source (potable water only)
- Slump test kit (or 2" PVC pipe, plexiglass sheet, ruler, and mixing spatula)
- Screed or gauge rake (for leveling)

Surface Prep

1. Comply with Dust Regulations: Avoid using oil-based floor sweeps as they can interfere with adhesion.
2. Check Moisture Vapor Emission: If moisture conditions exist, test per ASTM F-1869 to ensure MVER does not exceed limits as communicated by the manufacturers of the final floor covering.

Installation

Site Conditions

- The building must be enclosed and heated to a minimum of 50°F for at least 5-7 days before and after installation.
- Ensure work area is sealed, Hydrophase C150 is very low in viscosity and will flow through any open voids.
- Provide adequate ventilation to ensure proper curing.
- Once cured, apply HydroPhase® APS Primer/Sealer before installing glue-down or thin-set floor coverings.
- Always follow the Floor Covering Manufacturer's recommendations.

Sand Selection

- Use well-graded, washed sand free of contaminants.
- Ensure sand meets the recommended sieve specifications.
- Perform an on-site Water Bottle Test to check for impurities.

Water Quality

- Use only clean, potable water from a municipal source.
- Avoid using water from ponds, wells, or untested sources.

Mixing Instructions

- Measure Ingredients Accurately
 - Mixing Ratio: 50 lbs of C150 / 50 lbs approved sand / 9.75 - 10.25 quarts (9.25 to 9.7 liters) of water.
 - Mix on-site with approved sand and water must be 20 - 22% of content by weight.
 - Ensure water temperature remains between 45° F - 90° F.
 - Use clean, potable water.
- Mix Thoroughly
 - Mix for 2-3 minutes using a high-speed drill and 'egg beater' paddle set at 900 rpm.
 - Ensure all materials are fully incorporated, no lumps or dry clumps.
 - Short mixing times require more water to achieve proper flow, resulting in poor performance.
 - Do not overmix or move the mixer as it will entrap air.
- Ensure Proper Slump
 - Optimal slump range for C150: 11.5–12.25 inches (Do not exceed 13").
 - Conduct multiple slump tests throughout the pour for consistency.

Application

- Before application, test C150 with an on-site mock-up of leveler and approved primer on a portion of the prepared substrate to assure proper bond is maintained after application.
- The surface must be dry before application. Ensure to maintain proper temperature (40° F (7° C) and 90° F (32° C) during the application and maintained for a minimum of 48 hours after application.
- C150 has an approximate work time of 20 minutes. Work time can be affected by temperature and humidity at the work site.
- Always pour new material into a wet edge and plan your pour, crew size, and equipment accordingly.
- Immediately after applying the material, distribute the material using a gauge rake and steel smoother.

Control Joints

- Expansion and control joints should be honored throughout the pour as specified by the engineer.
- Refer to ASTM F710 for detail.

Curing & Protection

- C150 is Self-Curing and does not require any sealants or curing compounds.
- Do not use forced air during the first 8 hours of cure.
- Avoid foot traffic for 12 hours after the pour.
- Return to Trade Traffic the following day.

Cleanup

- Wash all tools with water promptly after finishing while material is still wet.
- Wash hands with water immediately after application .
- Cured material will require mechanical removal.

Storage & Handling

- Store in dry conditions.
- 12 month Shelf Life from date of manufacture when stored according to directions.

Health Precautions

- Follow all local safety regulations, including OSHA Section V: Chapter 4 for Fall Protection in Construction.
- Follow the manufacturer's Safety Data Sheets (SDS) and safety protocols for PPE.

Conformance to Building Codes

Installation must comply with all applicable local, state, and federal codes, regulations, and industry standards.

For additional technical support, contact Formulated Materials or visit www.formulatedmaterials.com.

6. Availability

Item	Description	Size
10400	Hydrophase® C150	50# Bag
10400 SS	Hydrophase® C150	2960# SuperSack

40 or 70 bags per pallet

7. Product Warranty

For details and complete warranty information, visit www.formulatedmaterials.com.

8. Product Maintenance

Properly installed products do not require ongoing maintenance.

9. Technical Services Information

For Technical Services, contact Formulated Materials at (844) 405-3676.

10. Filing System

Additional product information is available from Formulated Materials upon request.



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