

SPECCRETE® HIGH FLOW 500 SELF LEVELING UNDERLAYMENT NON-GYPSUM BASED

PRODUCT DESCRIPTION: Speccrete® High Flow 500 is a self-leveling, pumpable or pourable, non-shrinking, polymer modified, high strength underlayment material that is designed specifically to provide a durable, flat, smooth surface for interior, dry, concrete floors. Speccrete® High Flow 500 is ideal for new or old construction, restoration finishes over un-level or rough finished concrete, wooden floors, as well as leveling floors as a sub-floor finish prior to installing carpeting, ceramic tiles, terrazzo or other floor covering systems. Speccrete® High Flow 500 can be installed from a recommended minimum of 1/8 inch (3 mm) average depth up to 1inch (25mm) thickness in one application.

BENEFITS: EXCELLENT FLOWABILITY & LEVELING...EXTENDED "HEAL" TIME DURING PLACEMENT...FAST STRENGTH GAIN FOR EARLY FOOT TRAFFIC (4-5 HOURS)... POLYMER MODIFICATION EXHIBITS IMPROVED BOND AND TENSILE STRENGTHS...HIGH EARLY COMPRESSIVE STRENGTH FOR FAST FLOOR COVERING INSTALLATIONS (24 HOURS)...HIGH END STRENGTH FOR INDUSTRIAL TRAFFIC & DURABILITY.

COMPOSITION: A blend of modified cements, polymers, flow additives and selective aggregates. High Flow 500 contains no gypsum components (will not soften).

TECHNICAL DATA:

APPROXIMATE WORKING PROPERTIES @ 70° F (21° C)	RESULTS:
Work Time (Placement):	25-30 minutes
Flow (Heal) time:	10-15 minutes "self-healing" fluidity
Coverage of 45 lb bag:	22 square feet @ ¼ inch
Yield:	0.40 cubic feet per 45# bag
PERFORMANCE PROPERTIES @ 70° F (21° C):	RESULTS:
SETTING TIMES - ASTM C-266:	
Initial set:	1 hour
Final set:	2 .5 hours
COMPRESSIVE STRENGTH (AVE.) -ASTM C-109:	
8 hours:	1600 p.s.i.
1 day:	3500 p.s.i.
3 days:	4500 p.s.i.
28 days:	6200 p.s.i.
VOLUME CHANGE/EXPANSION-ASTM C-157:	
1 day:	-0.001%
7 days:	-0.001%
28 days:	-0.001%

SURFACE PREPARATION: Concrete floors – Speccrete® High Flow 500 should be applied to only clean, dry, non-dusting, primed, sound surfaces that are at least 28 days old. Over-watered, frozen, loose or weak materials need to be removed. Clean the concrete surface to be repaired by mechanical abrasion or scarification methods, removing dust, dirt, gypsum based patching compounds, grease, oil, curing compound, sealers and all other contaminants or foreign material. Profile or roughen smooth or steel troweled surfaces before applying Speccrete® Hi Flow 500. **Prior to applying the Speccrete® High Flow 500, it is mandatory to patch or fill any joints, cracks, gaps, or openings in the surface with Speccopatch RS, Specco B-50 epoxy grout, or an appropriate patching material to contain loss or runoff.**

SURFACE PREPARATION: Wooden floors – The flooring shall be constructed to allow no movements or deflections once the Speccrete® High Flow 500 is applied that would promote cracking. Remove all grease, dust, oil, wax, varnish, and other contaminants from the floor that would prohibit bond. It may be necessary to sand down the wood to roughen the surface and remove the contaminants. Do not use cleaning solvents or strippers. Nail down any loose corners or edges showing movement. Patch any joints, cracks, gaps, or openings between the wood pieces as mentioned above to prevent runoff.

PRIMING: After adequate surface preparation, all sub-floors should be dry and need to be primed thoroughly with Speccobond before application of High Flow 500. Priming the sub-floor prevents absorption of hydration water from the Speccrete® High Flow 500 that could affect bond and strength properties. To insure good adhesion, the Speccobond should be pre-tested on the substrate before applying the Speccrete® High Flow 500. Apply Speccobond to a small "test"

PRIMING: (continued) area by brush or broom, let dry, and then using a sharp knife cut an “X” through the film. If the Speccobond primer peels up upon scraping, the substrate is not suitable for application. If the Speccobond is only scratched, then the surface is acceptable. Apply the Speccobond solution liberally to the entire area to be coated at an approximate rate of 200-300 square feet per gallon (4.9-7.4 m²/L) depending on the absorption or porosity of the substrate. Brush or mop the primer into the surface taking care to seal all the pores in the concrete and to avoid any “puddling” of the primer. A continuous film should be obtained without any “pinholes” or air openings on the surface, which indicate high porosity. Very porous or absorbent substrates may require 2 coats of primer to seal effectively, with the first coat diluted 1:1 with potable water for better penetration, and the second coat applied as is. Allow 2-3 hours of dry time between coats. The drying time of the Speccobond solution will vary with temperature, humidity, wind, or ventilation procedures used during the time of installation. Increase airflow by use of fans to help speed dry time if necessary. Allow the Speccobond to dry completely to a “tacky to touch” consistency before applying Speccrete® High Flow 500. Primed surfaces are usable up to 24 hours and should not be walked on or subjected to traffic. If the Speccrete® High Flow 500 application exceeds 24 hours, then another coat of Speccobond should be diluted 1:1 with potable water, and then re-applied to the area.

MIXING DIRECTIONS: Mix Speccrete® High Flow 500 using a heavy duty (1/2 inch plus) electric drill or paddle mixer at slow speed. One 45 lb. bag of Speccrete® High Flow 500 will require approximately 5.3-5.5 quarts (5.00-5.23 Liters) of water. Place the pre-measured, clean, potable water into a mixing pail with a 5-gallon minimum capacity. Gradually add the Speccrete® High Flow 500 to the mixing pail, mix thoroughly to a lump-free consistency, and place within 20-30 minutes. Note -The material will appear slightly “thick” at first, but will “wet out” and gain flow after 1-2 minutes of mixing. **Do not add any additional or excessive water, as this will decrease ultimate compressive and bond strengths, and may promote additional bleeding and segregation of the mix.** Speccrete® High Flow 500 should be placed in a continuous operation by either pouring out onto the primed area or pumping with standard pump equipment. The material will seek its own level and typically should not be disturbed, troweled or raked. If using spike rollers or gauging rakes, take care not to leave any waves or ridges in the final grade. The surface will be suitable for foot traffic in 4-5 hours. Consult related floor covering manufacturers for internal moisture level requirements before installing any vinyl tile, carpet, linoleum, wood parquet, or epoxy flooring.

CAUTIONS: The area to be repaired or covered should be tightly formed and restricted to “contain” the material from excessive run-off –see Surface Preparation section. **Make sure all drains, vents, or floor openings are covered or sealed to prevent intake of Speccrete® High Flow 500.** Do not apply High Flow 500 to existing floors with highly oil soaked surfaces unless the concrete is scarified or abraded down completely to an oil free surface. The use of standard degreasing chemicals or steam cleaners is usually not sufficient in oil saturated substrates to allow a good bond to the primer and underlayment. Do not apply Speccrete® High Flow 500 if the temperature is 50° F (10° C) and dropping or above 80° F (26.7° C) and rising. Do not apply to frozen or frost filled surfaces. Do not apply in submerged or continuously wet environments as the Speccobond primer integrity can be affected by re-hydrolysis. Protect from excessive sun and wind exposure, as well as temperature extremes that could prevent inadequate curing.

WARNINGS: Contains cement and silica, avoid inhalation of dust. Wear gloves, safety goggles, and OSHA approved dust respirator during mixing and placement. Refer to product M.S.D.S. (Material Safety Data Sheet) for additional safety information. Do not take internally. Avoid prolonged contact with skin. **FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.**

NPCS HMIS SAFETY RATINGS: HEALTH = 2, FLAMMABILITY = 0, REACTIVITY = 0, PROTECTION = E

PACKAGING: 45 lb. Bags (20.45 kg)

STORAGE: 40° to 90° F in a dry, protected area.

SHELF LIFE: 1 year properly stored

FREIGHT CLASS: Item #42130, Sub 0, LTL 50- Cement based patching material in bags or pails

LIMITED WARRANTY: Specco recommends customers conduct their own tests before using this product on any questionable substrates for evaluation of the suitability of the material for its intended use. This product is warranted to be of merchantable quality when used according to the instruction herein. It is not warranted to be suitable for any purpose or use other than the general purpose for which it is intended. Liability under this warranty is limited to the replacement of the product as purchased, if found to be defective upon inspection by the manufacturer. This limited warranty is issued and accepted in lieu of all other expressed warranties and explicitly excludes liability for consequential damages. Buyer assumes all risk and liability resulting from the use of this product. Revised – 02-02-10