

ORIGINAL #19

VISCOSITY MODIFYING ADMIXTURE FOR CONCRETE

PRODUCT DESCRIPTION: Original #19 is a neutral, biodegradable, liquid chemical additive designed to reduce bleeding, segregation, shrinkage and cracking that can occur in high water/cement ratio concrete mixes. The viscosity modifying properties of Original #19 also contribute to stabilization of high water to cement ratio mix designs as well as S.C.C. mixes that are susceptible to segregation at high slump ranges.

BENEFITS AND FEATURES

BLEED / SEGREGATION CONTROL: Original #19 decreases surface water bleeding and improves aggregate suspension due to its gelling action. The hydration water is held integrally in the mix (not pushed to the surface), resulting in concrete with reduced capillarity, improved workability and cohesiveness.

SHRINKAGE CONTROL: Original #19 stabilizes the concrete mix and therefore decreases shrinkage potential or surface cracking common in wet mixes or hot, windy weather environments

EASIER FINISHING: Original #19 aids surface finishing in flatwork by holding the hydration water in the matrix for extended times with minimal effects on set time. This allows for easier troweling with less drag or pull on the concrete and stronger compaction at the surface.

EASIER PLACEMENT: Original #19 reduces splashing during concrete placement and adds workability to the concrete without added vibration or screeding. Original #19's hygroscopic gelling action retains moisture and provides a creamy uniformity to the mix.

DECREASED PERMEABILITY: Original #19 provides a volume stabilized "closed cell" concrete structure less susceptible to water intrusion. This results in decreased surface damage from continuous freeze-thaw cycling and increased resistance to attack by deicing chemicals.

IMPROVED SURFACE APPEARANCE: Original #19 intensifies color shades in decorative mixes containing iron oxide colorants resulting in improved appearance, uniformity and easier mixer clean out. Streaking, shade variations, and efflorescence formation are reduced or eliminated.

S.C.C. VISCOSITY MODIFICATION: Original #19 is compatible with most polycarboxylate type superplasticizers (Specco W-40 SL) used in S.C.C. (self compacting concrete) mix designs, and can be added in tandem to achieve more uniform mix designs with segregation and bleed control at high slump levels. Original #19 provides controlled rheology and volume stability to high slump or S.C.C. modified concrete during transport and placement to prevent segregation and bleed.

SHOTCRETE ADDITIVE: Original #19 dramatically reduces rebound, adds lubricity to the mix and allows easier pumping, as well as providing an internal cure with delayed hydration loss that will assist in the corresponding wet mist curing process.

COMPOSITION: Medium viscosity proprietary gellant based solution. Original #19 does not contain any calcium chloride or intentionally added chlorides that would initiate or promote corrosion of reinforcement steel, or contribute to efflorescence.

PHYSICAL PROPERTIES at 70° F (21°C):	APPROXIMATE VALUES:
Weight per gallon:	8.28 +/- 0.25 lb./ gallon
pH:	8.0 +/- 0.5
Color:	Clear off yellow liquid
Viscosity –Brookfield:	4000 cps +/- 250 cps

TECHNICAL DATA: Independent laboratory test data for Original #19 is available upon request

RECOMMENDED ADDITION RATES: Dosage of Original #19 varies from 3-16 ounces per 100 lbs. (196-1045 ml per 100 kg) of cement depending on the mixer type, mix design component levels, water to cement ratio and additional admixture requirements. Specco recommends a starting dosage of 3-4 ounces per 100 lbs. of cement (196-259 ml per 100 kg) of cement, with increasing amounts as needed to control surface bleed water. Specco recommends a trial mix be conducted with actual production materials in order to determine the optimum dosage for specific set time or strength requirements. Refer to Cautions Section for additional information.

DIRECTIONS FOR USE IN AUGER MIXERS: Original #19 may be dispensed with automatic liquid dispensers, but will require a typical 19:1 by volume dilution rate with water for proper flow consistency. Refer to Specco's Admixture Tank calibration sheet for proper dilution ratios.

DIRECTIONS FOR USE IN PADDLE, RIBBON, OR PAN STYLE MIXERS: Mix concrete with or without additional plasticizers or air entraining agents to the desired consistency (See Cautions Section below). Add the required amount of Original #19 as needed to help bind excess bleed water in the mix, producing a creamy mix consistency. Add Original #19 solutions slowly to the mixer at the end of the mixing cycle (while agitating) to avoid higher air entrainment levels.

DIRECTIONS FOR USE IN SHOTCRETE: In the wet process, Original #19 is added to the mix at 16 ounces per 100 lbs of cement. In the dry process, Original #19 is added to the water that is pumped to the nozzle at the rate of 1 part Original #19 to 20 parts water by volume.

CAUTIONS: Original #19 is compatible with most other admixture types; however they should be added separately to the mix to avoid any possible chemical interaction. For example, air entraining agents based on vinsol resin and superplasticizer based on naphthalene-sulfonate are not compatible in the same admixture tank with Original #19 however; they can be added separately if needed. Original #19 contributes to air entrainment levels. Specco recommends that any separate air entraining agent additions to the concrete mix should be reduced at least 50% when using Original #19, and the resulting mix should then be checked for accuracy to stay within the desired level. **NOTE:** Due to the viscosity modifying characteristics of #19 and the effects on water permeability, air entrainment levels measured by the standard pressure volume meter may not be accurate, and should be re-checked by weight difference interpolation versus a control. Keep from freezing. If frozen loosen cap, lid or bung and allow solution to thaw and mechanically agitate before using. The solution can then be used. Protect Original #19 from freezing and excessive heat.

WARNINGS: Avoid contact with skin and eyes. Wear protective clothing and safety glasses during application. Keep away from food and drink. Do not take internally. Refer to product M.S.D.S. (Material Safety Data Sheet) for further health and safety information. **FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.**

H.M.I.S. CODES: HEALTH = 1, FLAMMABILITY= 0, REACTIVITY = 0, PERSONAL PROTECTION = C (GLOVES, GOGGLES, APRON)

SHIPPING NAME: Concrete Admixture – Water base - Not regulated by D.O.T.

PACKAGING: 1 gallon (3.78 L), 5 gallon (18.9 L) pails, 55 gallon (208 L) drums, 265 gallon (1000 L) containers.

STORAGE: 40° to 90° F. **SHELF LIFE:** 1 year properly stored

LIMITED WARRANTY: 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.

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