

ORIGINAL #19R

VISCOSITY MODIFYING ADMIXTURE WITH SET RETARDATION

PRODUCT DESCRIPTION: Specco Original #19R admixture is a neutral, biodegradable, liquid chemical additive designed to offer extended working and setting times in hot weather. The viscosity modifying properties add lubricity and densification to extruded mix systems or low water to cement ratio mix designs in warm or dry weather conditions. These same properties reduce surface bleeding, segregation, shrinkage and cracking that can occur in high slump mixes poured in the same conditions.

BENEFITS AND FEATURES

EXTENDED WORK TIME: Original #19R allows delays of initial and final set times for extended workability and placement of the mix in hot, dry, windy temperature extremes.

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

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

DECREASED PERMEABILITY: Original #19R 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 #19R 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.

MIX STABILITY: Original #19R provides controlled rheology and volume stability to high slump or S.C.C. modified concrete during transport and placement to prevent segregation and bleed.

COMPOSITION: Viscosity modified gluconate based solution. Original #19R 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: | 8.30 +/- 0.5 lb./ gallon |
| pH: | 8.0 +/- 0.5 |
| Color: | Clear-pale yellow liquid |
| Viscosity –Brookfield: | 650+/- 50cps |

TECHNICAL DATA: Independent laboratory test data for Original #19R is available upon request. Original #19R is formulated to comply with ASTM C-494 Type B guidelines.

RECOMMENDED ADDITION RATES: Dosage of Original #19R 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 for delayed set or 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. The dosage will vary with jobsite temperature, air movement, concrete temperature and mass, mix design components or other admixtures, as well as sun exposure or wind-break protective measures used. Refer to Cautions Section for additional information.

DIRECTIONS FOR USE IN AUGER MIXERS: Original #19R may be dispensed with automatic liquid dispensers but may require a typical 1:1 to 1:2 by volume dilution rate with water for proper flow consistency depending on diameter of tubing. 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 #19R as needed to help bind excess bleed water in the mix, producing a creamy mix consistency. Add Original #19R solutions slowly to the mixer at the end of the mixing cycle (while agitating) to avoid higher air entrainment levels.

CAUTIONS: Original #19R 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 #19R however; they can be added separately if needed. Original #19R 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 #19R and the resulting mix should then be checked for accuracy to stay within the desired level. NOTE: Due to the viscosity modifying characteristics of #19R 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.

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

STORAGE: Ideal storage is between 60° to 80° F. Keep from freezing.

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

SHELF LIFE: 1 year stored properly. Depending on storage conditions, the shelf life may be extended.

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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