



شركة أبولو لكيماويات الأبنية Apollo For Construction Chemicals

NASA S Method Statement

(High build high strength fibre reinforced non-shrinkage repair mortar)

Section A: General Comments

- (i) NASA S can be applied in a single application for sections up 75 mm thick in vertical application, 100 mm thick in horizontal application, and 50 mm in overhead application; **thickness should not be less than 10 mm deep in all applications.**
- (ii) NASA S shall be used when the ambient temperature is between 5°C and 50°C. Cold water shall be used to prevent mixed material temperature exceeding 32°C.
- (iii) The area to be repaired should be marked on the structure.

Section B: Application

1.0 Preparation

- 1.1 Cut back all the damaged or weak concrete by a suitable means to reach sound concrete or to a minimum depth of 10 mm.
- 1.2 All the prepared surfaced must be sound, dense, clean and free of any oil, grease, loose or fractured aggregate or any other contaminants that may adversely affect the adhesion.
- 1.3 Exposed reinforcement steel shall be grit blasted to a minimum grade of Sa 2 according to ISO 8501-1.
- 1.4 All grit blasted steel reinforcements should be primed within 2 - 4 hours with one or two coats of zinc rich epoxy coating NASA ZR.
- 1.5 Thoroughly saturate the surface of the concrete to provide a saturated, surface dry condition. Any excess water on flat surfaces should be removed prior to application of the mortar.

Note: In case of fully submerged condition, or when the concrete elements will be exposed to chemicals, epoxy bonding agent should be used as a primer at a rate of 3.5 kg/m² before applying the repair mortar.



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2.0 Mixing

- 2.1 Hand mixing with trowel or similar of NASA S is not allowed. A variable speed mixer with large mixing paddle should be used.
- 2.2 Water addition shall be between 4.0 - 4.5 litre of potable water per 25 kg bag.
- 2.3 Pour the required amount of mixing water into the pre-wetted mixing drum. Start the mixer and add the NASA S powder rapidly and continuously. Mix for 4 - 5 minutes after all the powder has been added until the mortar is homogeneous and lump free.

3.0 Application

- 3.1 Where NASA S mortar is trowel applied it must be forced into the prepared substrate ensuring intimate contact and good compaction.
- 3.2 The surface of the placed mortar shall be leveled using a wooden flat. Final finishing may be done with a wooden, plastic or steel trowel, depending upon the finish required.

4.0 Curing

- 4.1 **Immediately** on completion of repair, cure NASA S by spraying Apollo curing compound.



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Section C: Approval and variations

This method statement is offered by Apollo for construction chemical as a 'standard proposal' for the application of **NASA S**. It remains the responsibility of the Engineer to determine the correct method for any given application. Where alternative methods are to be used, these must be submitted to Apollo for construction chemical for approval, in writing, prior to commencement of any work. Apollo for construction chemical will not accept responsibility or liability for variations to the above method statement under any other condition.