



# شركة أبولو لكيمائيات الأبنية

## Apollo For Construction Chemicals

### NASA SPR 500 Method Statement

(Liquid polymer bonding agent for cement mixes and concrete repair)

#### Section A: General Comments

##### Equipment

It is suggested that the following list of equipment is adopted as a minimum requirement:

|                              |   |   |
|------------------------------|---|---|
| <i>Protective clothing</i>   | : | <i>Protective overalls</i>                                      |
|                              | : | <i>Good quality gloves</i>                                      |
| <i>Preparation equipment</i> | : | <i>Grit blasting</i>  |
|                              | : | <i>Wire brush</i>   |
| <i>Mixing equipment</i>      | : | <i>Mechanical drill mixer with mixing paddle</i>                |
|                              | : | <i>Mixing container</i>   |
| <i>Application equipment</i> | : | <i>Stiff brush, wooden float, steel float or notched trowel</i> |

#### Section B: Application

##### 1.0 Surface preparation

- 1.1 The substrate should be sound, clean and free from contamination.
- 1.2 Surface laitance should be removed by light scabbling or grit blasting.

##### 2.0 Mixing

- 2.1 For better dispersion, NASA SPR 500 should be added and mixed with clean water prior to dry materials.
- 2.2 As a bonding agent, it is recommended to mix NASA SBR 500: 1 clean water: 2 OPC cement by volume in order to achieve a slurry consistency as following:
  - 2.2.1 Add 1 part cleaning potable water to the mixing container.
  - 2.2.2 Add NASA SPR 500 to the potable water in the mixing container and mix with mechanical drill mixer with mixing paddle.
  - 2.2.3 Add 2 parts OPC cement to the liquid mix in the mixing container and mix with mechanical drill mixer with mixing paddle for 3 minutes until uniform consistency is obtained.



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**2.3** As a bonding and waterproofing additive for site mixed floor screeds, renders, concrete repair and floor patching, it is recommended to use the proportions shown in the table below:

| <b>Application</b>               | <b>The Added Amount of NASA SPR 500</b> |
|----------------------------------|---|
| Wells Plaster                    | (13 – 15) ltrs/ 50 kg cement            |
| Rough Plaster                    | (8 – 9) ltrs/ 50 kg cement              |
| Fine Plaster                     | (6 – 8) ltrs/ 50 kg cement              |
| Concrete Mixtures in Slabs       | (22 – 24) ltrs/ 50 kg cement            |
| Concrete Mixtures in Foundations | (26 – 32) ltrs/ 50 kg cement            |
| Stone Grout                      | (8 – 10) ltrs/50 kg white cement        |
| Internal Tile Grouts             | (6 – 8) ltrs/ 50 kg cement              |
| External Tile Grouts             | (9 – 12) ltrs/ 50 kg cement             |
| Cementitious Repair              | (14 – 16) ltrs/ 50 kg cement            |
| Tile Adhesive                    | (4 – 5) ltrs/25 kg tile adhesive        |

### 3.0 Application

**3.1** As a bonding agent slurry:

3.1.1 Apply a thick coat to pre-soaked surfaces using a stiff brush.

3.1.2 Application of the subsequent render, mortar or screed should take place while the bond coat is still wet (tacky).

*Notes:*

- Do not apply on dry bond coats.
- If bond coat dries before subsequent application, roughen the dry coat before applying a further coat of NASA SPR 500 slurry.

**3.2** As a bonding and waterproofing additive for site mixed floor screeds, renders, concrete repair and floor patching:

3.2.1 Apply the screed, repair mortar or render mix using wooden float to place and compact while the bond coat is still wet (tacky).

3.2.2 Finish with a steel float.

### 4.0 Curing

**4.1** Care should be taken for appropriate curing.

**4.2** Use chemical curing compound or a wet hessian completely covered with a polyethylene sheet for curing.



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## 5.0 Cleaning

- 5.1 All tools should be cleaned **immediately** after use with fresh clean water. Hardened materials should be cleaned mechanically.

## Section C: Approval and variations

This method statement is offered by Apollo for Construction chemicals as a 'standard proposal' for the application of NASA SPR 500. 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 chemicals for approval, in writing, prior to commencement of any work. Apollo for Construction chemicals will not accept responsibility or liability for variations to the above method statement under any other condition.