

# **DESCRIPTION:**

SoundBond FBA is a liquid, water-based dispersion, based on a styrene-acrylic polymer system. It is used to modify cement mixes significantly increasing bond, tensile and flexural strengths, whilst improving resistance to abrasion, chemical attack, water and vapour transmission.

# **USES:**

- Bonding aid for new and old concrete / mortar.
- Repair and patching of concrete areas.
- Water resistant renders and abrasion resistant toppings.
- Heavy duty trowel finished floors.
- High strength bonding of concrete.
- Waterproof renders for tiling and brickwork.
- Resurfacing old concrete or granolithic floors.
- Self leveling floor screeds.
- High strength repair and patching mixes.
- Mortar lining of areas subject to abrasive or mild chemical action, effluent ducts, tanks, etc.
- Waterproof slurry coats to level and seal walls, floors and tanks.

# **ADVANTAGES:**

- Excellent adhesion to a wide range of cementitious substrates.
- Improves toughness and flexibility, reduces chance of cracking in mortars & screeds.
- Increases wear resistance and frost resistance.
- Suitable for interior and exterior applications.
- SoundBond FBA dramatically improves adhesive, compressive and tensile strengths of cementitious mixes.
- Greatly increased impact and abrasion resistance.
- Self levelling, flowing consistency mixes can be produced to enable placement under difficult conditions.
- Mixes containing SoundBond FBA have low permeability, and are suitable for waterproof sealing and lining of tanks, pools, etc.
- Chemical resistance to oils, grease, salt solutions and mild acids is very good.

### **TYPICAL PROPERTIES:**

Appearance: White liquid Specific Gravity: 1.03 at 20°C

### **STORAGE LIFE:**

12 months from date of manufacture.

# **METHOD OF USE:**

Surface Preparation In all situations the surface to be treated or coated, must be clean, sound, and free from dirt, dust, and other loose particles. All oil and grease contaminants must be removed.



It is recommended that edges of concrete repair areas be squared off/cut back to allow for maximum adhesion and structural soundness of the repair. Surface preparation of exposed steel should ensure that the surface to be coated is rust-free before application. Concrete surfaces should be saturated with water before application, to minimise absorption into the substrate. Free standing water must be removed. Alternatively, if the substrate is porous and particularly for flooring applications, it is recommended that the surface be sealed with SoundBond FBA, diluted with 2 parts water. In the majority of applications using wet mixes, bond coats are not required, but for semi-dry mortars, a bonding coat should be used. Never allow bond coats to dry before applying the mortar screed, render or repair material. If this happens then scratch mark the coating and apply a further wet bond coat.

### DOSAGE:

SoundBond FBA can be used neat or diluted with water. Levels quoted in the 'Application' section are given only as a guide. Dosage will vary depending upon the application.

### **APPLICATION:**

#### I. Bond Coating Objective

Bond/adhesion coat for concrete, brick and masonry surfaces, to accept cementitious renders, screeds or repair mixes. Waterproof slurry coating for concrete surfaces.

Mix Design - Cement: OPC/SRC; 50 kg

SoundBond FBA: 16 litres

Coverage: 0.5 - 1 m2/kg equivalent to 0.4 litres SoundBond FBA per m2

#### Application:

Mix the cement into the SoundBond FBA until cohesive. Use a stiff brush to apply a thick coat to the wetted surface. Work well into the surface. Application of concrete renders and mortars should take place while the bond coat is still wet. Do NOT apply over dry bond coats, in this case hand scabble the dry coat before applying a further bond coat. Bond coats remain 'tacky' for approximately 20 minutes depending on ambient temperature.

Typical Properties - Bond strength, Slant Shear Method, as per BS 63 I 9, Part 4: 26 N/mm2

#### 2. Waterproof Slurry Objective

Waterproof slurry render for sealing basements, tunnels, reservoir, pipes and areas where water seepage is undesirable. Protection of metal against corrosion.

Mix Design - Cement, OPC/SRC: 50 kg.

Sand 0 - 0.3mm: 25 kg. SoundBond FBA: 25 litres.

Coverage: 0.3 -0.5m2/kg equivalent to 0.6 litre SoundBond FBA per m2

#### Application:

Apply the polymer modified slurry mix to the well dampened substrate using a brush or trowel and spread evenly at a thickness of 0.5mm- 2mm. Leave the first coat for 6-24 hours until it has hardened sufficiently before applying a further application at the same thickness. Use the appropriate number to coats to ensure complete coverage.

Typical Properties –

Bond Strength, Slant Shear Method, 2 BS 6319, Part 4: 24.0 N/mm2

Flexural Strength, BS 6319, 2 Part 3: 11.0 N/mm2 Compressive Strength, BS 6319, 2 Part 2: 50 N/mm2.

### 3. Concrete/Flooring Repairs Objective

Trowelled repair mortars of plastic consistency to provide impact and abrasion resistant patching to flooring, stairways, walls, column, etc.

Mix Design –

| FLOOR REPAIR THICKNESS | 15-25MM | 10-20MM  |
|------------------------|---------|----------|
| Cement, OPC :          | 50 kg   | 50 kg    |
| Sand Grade M:          | 100 kg  | 100 kg   |
| Gravel 3mm :           | 100 kg  | 50 kg    |
| SoundBond FBA:         | 15 ltrs | 10 ltrs. |
| Water :                | 7 ltrs  | 10 ltrs. |

#### Application:

Dampen/wet the prepared substrate, apply a bond coat and while still WET place the screed, repair or render mix using a wooden float to apply and compact. Repair mixes are best placed at a semi-dry consistency, rammed into place. Finish with a steel float. Good curing is essential to prevent drying and cracking.

| TYPICAL PROPERTIES                    | COAT 1        | COAT 2        |
|---------------------------------------|---------------|---------------|
| Abrasion and Impact<br>Resistance     | High          | Medium        |
| Compressive Strength<br>BS 6319,Part2 | 65.0<br>N/mm2 | 67.3<br>N/mm2 |
| Flexural Strength<br>BS 6319, Part 3: | 12.7<br>N/mm2 | 13.0<br>N/mm2 |

### 4. Polymer Concrete Objective

Production of flooring grade wet concrete mixes with improved adhesion and flexural strength, without excessive air entrainment.

| MIX DETAILS | MIX 1   | MIX 2                   |
|-------------|---------|-------------------------|
|             | Control | SoundBond FBA           |
| Dosage      | 0       | 20% by weight of cement |
| W/C         | 0.70    | 0.53                    |



#### Application:

SoundBond FBA must be incorporated into the concrete mix at the mixing/batching plant because its high range water reducing effect. Concretes produced in this way behave similarly to conventional concrete although they have a slightly shorter usable life. Also there is a tendency for any residues left in the mixer to dry quickly and mixers and other equipment should therefore be cleaned as soon as possible.

| TYPICAL PROPERTIES                          | MIX 1 | MIX 2  |  |  |
|---|-------|--------|--|--|
| Initial Slump                               | 90 mm | 160 mm |  |  |
| Air Content                                 | 1.8%  | 2.8%   |  |  |
| Compressive Strength, BS 6319, Part 2 N/mm2 |       |        |  |  |
| at 3 days                                   | 17.5  | 25.5   |  |  |
| at 7 days                                   | 24.5  | 34.5   |  |  |
| at 28 days                                  | 32.0  | 45.5   |  |  |
| Flexural Strength<br>BS 6319, Part 3        | 3.7   | 6.9    |  |  |

The placement technique is the same as for normal cohesive concrete mix designs, and depends on the size of pour, extent of reinforcement, degree of vibration available, etc.

# **CURING:**

Thorough curing is essential on all exposed surfaces, particularly in dry or windy conditions. One or two coats of a membrane sealer will provide curing. Alternative methods such as water misting, polythene sheeting and similar techniques are also suitable.

# **HEALTH AND SAFETY:**

For further information see the SoundBond FBA Material Safety Data Sheet.

### **PACKING:**

SoundBond FBA is supplied in 25 litre and 210 litre free, non-returnable containers.

### **STORAGE:**

SoundBond FBA is a stable non-flammable product. Store in closed containers, at temperatures of 10°C-40°C for maximum storage life.

# **TECHNICAL SERVICE:**

The Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.



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#### **DISCLAIMER:**

If applied as per the recommendation in the product data-sheet, PMC-1 is guaranteed for the purpose of which it is recommended . We can not assume responsibility of misuse of our products . We assume no responsibility for the finished work as we have no control over factors such as mixing, application surface preparation, weather and other conditions that may prevail at the time of applications.