

## MULTI ARMOURFLOOR COLOURED 110

A colour pigmented, Metallic Aggregate and Abrasion Resistant Floor Hardener

### Description

MULTI ARMOURFLOOR COLOURED 110 is a specially processed and graded metallic aggregate combined with pre-blended and tested hydraulic cements. Further, incorporating absorbing agents, plasticisers, ground alkali and light-fast inorganic colouring pigments and other proprietary chemicals to provide a long lasting iron armoured ductile, durable and coloured floor surface. Eliminates the cost of periodically painting the concrete floor surface.

MULTI ARMOURFLOOR 110 LIGHT REFLECTIVE - a metallic hardener which combines the additional benefits of energy saving light reflective properties. Reflects natural and artificial light between 50-55% thus reducing electrical energy needs

### Typical Applications

MULTI ARMOURFLOOR COLOURED 110 is designed to harden and colour concrete floor surfaces in the following typical locations / facilities:

Garages	Warehouses
Power Stations	Breweries
Factories	Hangar Floors
Bottling Plants	Steel Plants
Bus Depots	Stores Shoe
Training Centres	Factories
Bakeries	Workshops
Loading Bays	Laboratories
Desalination Plants	Refineries
Dairies	School Workshops
Cold Rooms	Strong Rooms
Fresh Produce Markets	High Racking Stores
Cosmetic Factories	Tank Maintenance Bays

### Advantages

MULTI ARMOURFLOOR COLOURED 110 is designed to increase abrasion and impact resistance, with durability and wearing properties 4-8 times greater than that of plain concrete. It is applied as a dry-shake material incorporated monolithically into the concrete floor surface to protect and permanently colour the concrete surface

A pre-blended ready-to-use coloured dry-shake material that is easy to apply at the various specified application rates. Malleable iron aggregate which improves abrasion and impact resistance, reduces dusting, fracturing and pitting.

Improves impermeability by between 75-80% thus reducing penetration of aggressive liquids viz. oil, grease, fuel, skydrol, ethylene glycol, cleaning agents, mineral / vegetable and cutting oils, alkalis and many industrial chemicals. Easy to clean thus reducing maintenance costs.

### Typical Properties

Colours:	Alkali-fast/ light-fast inorganic colouring pigments in white, terracotta, brown, beige, ivory, Vaal Reefs grey, light reflective, burgundy, yellow, orange, red, green and many other colours
Aggregate:	Non-oxidising metallic composition
Abrasion Value:	Approximately 4-8 times greater than plain, high strength concrete or natural topping
Compressive strength:	70 M Pa at 22° C - 28 days
Storage Life:	Up to 1 year when stored in accordance with manufacturer's instructions
Flashpoint:	Not applicable

### Direction for Use

- \* Base concrete should have a minimum 25 MPa compressive strength and placed in accordance with good concrete practice. Particular care should be exercised at bay edges and corners to ensure good compaction. Begin floating operation as soon as base concrete is sufficiently firm to take the weight of both workman and power float leaving foot prints no greater than 3mm in depth. It is essential that no free standing water is evident.
- \* Apply the first dry-shake application at the rate of 2 / 3 of the specified amount. Allow moisture to penetrate through the dry shake surface hardener. Carry out the first power or hand trowel operation and apply the remaining 1 / 3 of the specified material at right angles to the first. Ensure that the first stage is completely trowelled into the concrete surface before continuing with the second stage as described.
- \* When the sheen begins to leave the surface, carry out power trowelling to close the pores, pin marks and to completely level the surface.
- \* Initially the power float blades should be set flat or at a slight angle and as the surface continues to stiffen, the angle of the blades should be increased. Do not over trowel. Cure with MULTICURE 300C pigmented curing compound at 8m<sup>2</sup> per litre.

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#### Stripping and Sealing

This is an optional procedure and should specification require, refer to Multi Floorcoat 1060 Technical Data Sheet.

#### Joints

Saw cut joints should be cut at  $\pm 5$ mm wide and 25% in depth to the surface bed thickness. These joints should be cleaned immediately with water and compressed air and left open for at least 28 days before sealing. Cuts should be made as soon as is practically possible without spading the cut joint. Seal all sawcut, construction and expansion joints with MULTI SEAL Polyurethane Joint Sealant in gun or pour grade.

#### Watchpoints

- \* Maximum concrete slump should be 75 mm
- \* Do not apply over concrete containing calcium chloride or where concrete contains more than 3% entrained air
- \* Do not cure with salt water or brackish water
- \* Never apply over bleed water
- \* Be aware of concrete susceptible to delayed bleeding
- \* Do not apply over concrete containing unrefined lignosulphonated admixtures
- \* Always cure as soon as possible with MULTICURE 300-C curing compound

**Note:** Factors affecting the final appearance of a coloured floor are:

- \* Poor workmanship
- \* Over /undertrowelling
- \* Contamination of floor surface when trowelling and finishing
- \* Do not over-apply curing compound as this will affect the final appearance of the floor surface
- \* Failure to protect the floor surface from contamination Physical damage caused by other trades
- \* Delamination
- \* Under-applying specified rates
- \* Not following application procedures

Pointers to prevent such problems arising follow these suggested procedures:

- \* Follow manufacturer's instructions and specifications
- \* Barricade the area where floor is being cast
- \* Alert other trades working in the area to guard against sliding heavy loads across floor causing physical damage, spilling oil, grease, paint and mortar etcetera
- \* During final trowelling do not burnish trowel - use hand trowels
- \* Do not add water to the coloured floor surface for finishing purpose

\* Make sure trowels, floats, power floats, knee boards and shoes are kept clean and free from dirt and fresh concrete

\* Do small areas per cast in order to achieve desired colour and texture finish

#### Standard of Quality

Prior to installation of large areas, we recommend that a small sample section of the floor be installed by the proposed personnel, using the same equipment and materials which will be used throughout the job. Upon approval by the architect, consulting engineer or client, this sample slab should set the standard of quality, texture and colour properties for the entire floor installation.

#### Specification Clause

MULTI AMROURFLOOR COLOURED 110 abrasion resistant non-oxidising metallic aggregate floor hardener combined with fast inorganic pigments as manufactured by MCC LIMPOPO Applied to all floor areas indicated at a rate of .... kg / m<sup>2</sup> all in accordance with the manufacturer's detailed instructions, and cured with MUL TI Cure 300 C curing compound. After 28 days or just prior to project handover, strip the curing compound with MULTI THINNERS 1610 stripper and then seal with MULTI FLOORCOAT 1060 sealer. See MULTI STRIPPING and SEALING Method Statement for details.

#### Packaging

Supplied in 25kg double lined moisture-resistant bags

#### Quality Assurance

MCC LIMPOPO's production and testing programmes comply with local and international quality assurance standards.

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Purpose	Light Duty KG/m <sup>2</sup>	Moderate Duty Kg/m <sup>2</sup>	Heavy Duty Kg/m <sup>2</sup>	Consentrated Duty Kg/m <sup>2</sup>	Extra Heavy Duty Kg/m <sup>2</sup>
Light Factory Floors, Showrooms, Shoe Factories ect.	7	7	7	9	
Schools, Breweries, Cold Rooms, Garages, Stores Bottling Plans, Produce Markets, Cosmetics Factories, Hangar floors, Workshops, Warehouse, Ramps	9	9	9	10	12
Steelworks, Machine shops, Shipyards, Loading Bays, Power Station and Bus Depots			9	12	15

**NOTE:** For lighter colours it is recommended that an application of 9kg/m<sup>2</sup> be used in order to achieve colour density.

### Updates

This data sheet supersedes all previous issues prior to this date: 31/05/97