

MULTI DURASHAKE 60

A Natural Aggregate Concrete Floor Hardener, 2-3 Times Greater Wear Resistant than Plain Concrete Floors

Specification Type

ACI Manual of Concrete Practice Part 1, ACI 201 and 2 R77 Guide to Durable Concrete. Section 3.4 and 6: recommendations for obtaining abrasion resistant concrete surfaces, BS CP 204 in situ Floor Finishes.

Description

MULTI DURASHAKE 60 a specially graded inert quartz aggregate combined with blended cements, water absorbing agents and other proprietary chemicals. The hard wearing quartz aggregate has high abrasion resistant characteristics and is non-oxidizing and chemically inert.

Typical Applications:

MULTI DURASHAKE 60 provides one of the hardest wearing non-dusting floor surfaces in the following typical locations/facilities:

- * Engineering Workshops, Abattoirs,
- * Garages, Bakeries,
- * Warehouses, Laboratories,
- * Power Stations, Subways,
- * Loading Bays, Car Parks,
- * Breweries, Refineries,
- * Desalination Plants, Factories, etc

Advantages

- * MULTI DURASHAKE 60 is designed to increase the durability and wearing properties of industrial and commercial concrete floors.
- * MULTI DURASHAKE 60 is applied by the dry shake method and is incorporated monolithically into the concrete surface.
- * It produces an extremely hard wearing durable floor surface with added resistance to abrasion, dusting and penetration of aggressive liquids.
- * Improves impact resistance.
- * Reduces maintenance costs.
- * MULTI DURASHAKE 60 can also be applied as a trowel led overlay system, incorporating MULTIBOND SBR 1070.

Typical Properties

Colour:	Natural concrete colour (also available in colours) Refer to Multi Durashake 65
MOH Scale:	7-8
Aggregate Grading Value:	18
Aggregate Impact Value:	22
Abrasive value:	2.5 times greater than plain surfaces
Storage Life	Up to 1 year when store in accordance with manufacturer's instructions

Coverage: See coverage chart
Flashpoint: Not applicable

Typical Comparative Wear Test Results Depth of Wear (Thickness loss) (mm)

Typical Comparative Wear Test Results Depth of Wear (Thickness loss) (mm)

Sample Reference (min)	Control Average	DURASHAKE 60 average
5	0,38	0,13
10	0,67	0,26
15	0,79	0,34
20	0,98	0,39
25	1,18	0,50
30	1,34	0,61
35	1,58	0,73

Weight Loss (Gm)

Sample Reference (min)	Control Average	DURASHAKE60 Average
5	2.9	1.4
10	5.8	2.7
15	7.6	3.7
20	9.9	4.8
25	11.9	5.7
30	14.6	6.4
35	16.7	7.8

Test results shown above indicate that MULTI DURASHAKE 60 significantly reduces the depth of wear. Tests were undertaken using a dorry abrasion machine.

Directions for Use

Base Concrete: The base concrete should be designed to a minimum of 25 MPa -30 MPa with \pm 65mm slumps.

Method of Application, Dry shake method: Base Concrete

- * Place concrete and strike off to the specified level
- * Level and consolidate with wood float, bull float or power trowel with the blades flat
- * If bleeding occurs, remove all bleed water from surface prior to application
- * Hand or machine floating

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Application

- * The MULTI DURASHAKE 60 should be applied when the 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. DO NOT DELAY application when this point has been reached.
- * Apply 2 / 3 of the first shake and carry out the first power or hand trowel operation, repeat the operation with the remaining 1 / 3 at right angles to the first. Ensure that the first stage is completely trowelled - in before continuing with the second stage.
- * When the sheen begins to leave the surface, carry out power trowelling to close the pores and 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. When trowelling, do not add water to the surface for finishing purposes.

Coverage

Dry Shake Method:

The following table details the coverage rate of the MULTI DURASHAKE 60:

Floor Specification:	kg/m ² Dry shake application
Light duty:	3-4
Medium Duty:	5-7
Heavy duty:	8-10

Curing should be carried out immediately the final trowelling operation has been completed with MULTICURE 200 Concrete Curing Compound Protect all surfaces from traffic until the surface has gained full strength.

Joints: Saw Cut joints should be cut at + 5mm 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 joints with MULTISEAL 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 200 Curing Compound

Packaging

Supplied in 25kg double-lined moisture resistant bags

Specification Clause

MULTI DURASHAKE 60 abrasion resistant non-oxidizing quartz aggregate concrete floor hardener as manufactured by MCC LIMPOPO Applied to all floor areas indicated at a rate of kg / m² all in accordance with the manufacturer's detailed instructions, and cured with MUL TI CURE 200.

Quality Assurance

MCC LIMPOPO's production and testing programmes comply with local testing standards Also complies with ACI Manual of Concrete Practice Part I, ACI 201 and 2, R77 Guide to Durable Concrete 3. 4 and 6, BS CP204 incite Floor Finishes

Updates

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