

HIGHWAYS MBM 90



**OPEN TO
TRAFFIC
IN 90_{Min}**

Larsen Highways MBM90 is a single part, all-purpose, rapid strength concrete, specifically formulated for the bedding of access covers and general repairs. It is manufactured from a controlled blend of specially selected aggregates, cements, and additives and only requires the addition of water to produce a high quality bedding layer. MBM 90 is ideal for the rapid installation of Highway and residential manhole cover frames and similar ironwork drainage components and for the rapid installation of paving sets, flags, kerbs and manhole brickwork.

OVER 20MPa WITHIN 2 HOURS
OVER 50MPa AFTER 28 DAYS
10 – 100mm BED DEPTH IN ONE PASS
LOW SHRINKAGE
FROST RESISTANT
OPEN TO TRAFFIC AFTER 1-2 HOURS
COMPLIES WITH DMRB HD27/04



TECHNICAL INFORMATION

PRODUCT INFORMATION	
FORM	Granular
COLOUR	Grey
MAX AGGREGATE	6mm
HAZARD INFORMATION:	IRRITANT – Contains Cement. Consult Safety Datasheet before use
CLEANING:	Clean tools, equipment, etc. using warm water. Mechanical means are necessary when the product has set.
PACKAGING:	25 kg multi-wall paper sacks and 20kg plastic tub
STORAGE INSTRUCTIONS:	Store unopened containers in a cool, dry location away from extremes of temperature
SHELF LIFE:	6 months in unopened manufacturer's containers
APPLICATION INFORMATION	
WATER DEMAND	3.0 - 3.5L per 25kg bag
APPLICATION TEMP:	+5 to +30°C
WORKING TIME:	Approx. 10 min
SETTING TIME:	15-20 min
TIME TO TRAFFIC:	Vehicle Traffic - after 1-2 hours (depending on site conditions)
BED THICKNESS	10 - 100mm
COVERAGE:	25 kg will cover 1m ² @ 12.5 mm
PERFORMANCE INFORMATION	
DENSITY	2200kg/m ³
SHRINKAGE:	<0.1%
COMPRESSIVE STRENGTH	90min - >20MPa 2 hours - >25MPa* 28 day - >50MPa
TENSILE STRENGTH	28 day - >3.5MPa

*Independent test report available on request

DIRECTIONS FOR USE

PREPARATION

All substrates must be suitable to receive the bedding as per current good working practices. All substrates should be clean and thoroughly sound and free from oils, grease, dust, loose particles or any other contaminants which may interfere with adhesion. They should be pre-soaked but free from standing water. For improved bond strengths, use Larsen Streetscape PS.

MIXING

Add 12 - 14% water, i.e. 3.0 – 3.5L of water per 25kg bag to achieve the desired workability. Mix with a suitable mechanical mixer. Should more water be added to achieve a more pliable workability, the hardened properties of the product will be reduced. Highways MBM90 will begin to set in 10-15 minutes, do not try to remix or wet-up MBM90 which has 'gone off'.

APPLICATION

Larsen Highways MBM90 can be applied in a bed of 10 -100mm in a single pass and should be placed typically within 5 minutes of mixing to allow time for adjustment. Typically place a bed of 5-10mm thicker than required to allow for adjustments. The frame should be placed onto the mortar bed without voids. Tamp the frame in place to achieve the required level. Any exposed mortar should be smoothly finished by float. Backfilling and resurfacing can typically commence after 30-45 minutes. Freshly laid areas should be protected from vehicle traffic for a minimum of 90min dependent on temperature and site conditions. Greater thicknesses can be achieved by adding up to 50% good quality washed 10-14mm aggregate. (1 bag aggregate per 2 bags MBM90)

RESTRICTIONS

Speed of set and strength development will be affected by site and substrate temperature. In warm conditions mixing with cold water will extend the setting time. In cold conditions mixing with warm water will reduce the setting time. Protect freshly placed material from freezing until set.

NOTE

Department of Transport Design Manual for Roads and Bridges Volume 7 Section 2 Part 4 HD 27/04 states - "3.11 Mortars for bedding iron work such as manhole cover frames during repairs may be trafficked when the strength is expected to be 20 N/mm². For rapid construction, this strength should be achieved within 2 hours."