



# HIGHWAYS MBM 104

OPEN TO TRAFFIC 60 Min HAPAS





**Product Sheet 2** 

Larsen Highways MBM 104 is a two component, high performance bedding mortar providing all the benefits of a resin based mortar with the ease of use associated with cement based mortars. It is suitable for use in the installation, raising and reinstatement of ironwork, up to and including installation Group 4 of BS EN 124 where rapid trafficking is required and has exceptional performance in wet weather conditions.

HAPAS APPROVED COMPLIES WITH MCHW, volume 1, series 500, clause 507 chambers, 44 COMPLIES WITH MCHW, volume 1, series 500 clause 507 chambers, 24 (i), (iii) & (iv).

2hr COMPRESSIVE STRENGTH > 20MPa 3hr COMPRESSIVE STRENGTH > 30MPa 3hr TENSILE STRENGTH > 5MPa 10 – 50mm BED DEPTH IN ONE PASS NON-SHRINK FROST RESISTANT





# **TECHNICAL DATA SHEET**

# **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:   | 20kg multi-wall paper sacks and 2.5L bottles   |   |
| 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  |  |   |
| MIX RATIO:   | 20kg Bag + 2.3L liquid additive  |   |
| APPLICATION TEMP:  | +1 to +30°C  |   |
| WORKING TIME:  | 15 min   |   |
| SETTING TIME:  | 20-25min   |   |
| TIME TO TRAFFIC:   | Vehicle Traffic - from 1 hour (depending on site conditions)   |   |
| BED THICKNESS  | 10 - 50mm  |   |
| COVERAGE:  | 1 pack (20 kg + 2.3L) will cover approx. 1m <sup>2</sup> @ 10mm  |   |
| PERFORMANCE INFORMATION  |  |   |
| DENSITY  | 2200kg/m <sup>3</sup>  |   |
| SHRINKAGE:   | <0.1%  |   |
| COMPRESSIVE STRENGTH   | Compressive<br>2 hours - 35 MPa  | <b>Flexural</b><br>2hours - 8 MPa                     |
| *Typical Results tested after storage@ 20°C  **Report No. TAS 11/160  ***Report No. TAS 11/161 | 3 hours - 39.4 MPa**<br>24 hours - 50 MPa<br>28 days - 65 MPa  | 3 hours - 9 MPa<br>24hrs - 10 MPa<br>28 days - 12 MPa |
| TENSILE STRENGTH   | 3hours - 5.4MPa**  |   |
| TENSILE ADHESION STRENGTH:   | > 3MPa to concrete   |   |



# **TECHNICAL DATA SHEET**

## **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.

#### **MIXING**

Add the contents of the liquid additive container to a suitable mixing vessel, holding back approx. 200ml and then slowly add the contents of the 20kg bag while mixing thoroughly with a slow speed drill and paddle. Only if required to achieve the desired workability, add the remaining liquid additive. Mix for a minimum of 2 minutes. Extra water or liquid additive should not be added as this will reduce the hardened properties of the product. Streetscape MBM 104 will begin to set in approx 15 minutes, do not try to remix or wet-up MBM 104 which has 'gone off'.

#### **APPLICATION**

Streetscape MBM 104 can be applied in a bed of 10 - 50mm 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. All works should be carried out in line with advice laid out in the relevant sections of the Design Manual for Roads and Bridges.

#### **RESTRICTIONS**

Speed of set and strength development will be affected by site and substrate temperature. Warm conditions will accelerate setting and cold conditions will slow setting. Protect freshly placed material from freezing until set. In adverse weather conditions, MBM104 should not be used if the temperature is below 3°C on a falling temperature or below 1°C on a rising thermometer.