

# DECLARATION OF PERFORMANCE

## RL FM 1 Roadstone Flomix Masonry Mortar

### 1. Unique identification code of the product type:

Code	Description	Compressive Strength (N/mm <sup>2</sup> )	Portion Of Constituents By Volume		
			Cement	Lime	Sand
1720015	Flomix Masonry Mortar M4	≥4.0	1	1	6
1720069	Flomix Brick Mortar M4 Refer to Table 7 -Durability against freeze thaw	≥4.0	1	1	5
1720067	Flomix Masonry Mortar M6	≥6.0	1	0.5	4
1720121	Flomix Hydrocure Brick/ Masonry Mortar M6 for use with clay brick with high initial rate of water absorbency	≥6.0	1	0.5	4
1720003	Flomix Masonry Mortar M12	≥12.0	1	¼	3

**2. Intended use** -as mortar in **common, facing or exposed** masonry and internal walls in load bearing or non-load bearing building and civil engineering applications in accordance with Irish Building Regulations (including Technical Guidance Documents A, B,C,D,E & L), Eurocodes I.S. EN 1996, 325:2013+A2:2018 (Recommendations for the design of masonry structures in Ireland to Eurocode 6).

### 3. Name, registered trade name or registered trademark and contact address of the manufacturer as required under Article 11(5)

Roadstone Ltd.  
Fortunestown  
Dublin 24



**4. N/A**

**5. System of AVCP** System 4

**6. Harmonised Standard:** I.S. EN 998-2:2016 Specification for mortar for masonry. Masonry mortar

## 7. Declared Performance

Characteristic	Declared Performance	Harmonised Technical Specification
Compressive Strength	As shown in Table above To Table NA.3 of the NA to I.S. EN 1996-1-1	I.S. EN 1015-11 NA to I.S. EN 1996-1-1
Portion of Constituents by Volume	As shown in Table above To Table NA.3 of the NA to I.S. EN 1996-1-1	I.S. EN 998-2 NA to I.S. EN 1996-1-1
Bond Strength	0.15N/mm <sup>2</sup>	I.S. EN 998-2 Annex C
Chloride Content	0.066%	I.S. EN 101517
Reaction to Fire	Class A1	Based on Commission Decision 200/605 EC amending 96/603 EC
Water Absorption	NPD	N/A
Water Vapour Permeability	U15/35	I.S. EN 1745
Thermal Conductivity	(10, dry) 0.82W/mK Tabulated mean value P=50%	I.S. EN 1745
Durability against freeze/thaw	Durability of a mortar is dependent on many factors including, design, detailing, masonry type and strength, exposures (ground conditions, location, wind, rain, temperatures etc.) and applied finishes. As these are design factors advise on mortar strength should be given by a Structural Engineer.**  M4 - MX2.1 Low risk of saturation without Freezing (rendered MX2.2) M6 - MX2.2 High risk of saturation without Freezing M12 - MX3.2 High risk of saturation with freezing  Mortar produced with aggregate in accordance with I.S. EN 13129 (Aggregates for mortar) and S.R. 18 :2021 (Guidance on the use of I.S. EN 13129, Aggregates for mortar)	** For durability classifications refer to I.S. EN 1996, Eurocode 6, Design of masonry structures, including Table NA. 3 of the National Annex to I.S. EN 1996-1-1, for prescribed masonry mortars which are based on prescribed minimum cement contents and S.R. 325:2013 + A2:2018 / AC 2019 Recommendations for the Design of Masonry Structures in Ireland to Eurocode 6, in particular Table 14, Durability of masonry in finished construction.  To prevent the ingress of wind driven rain Bucket Handle and Weather Struck Joints are preferred.
Dangerous Substances	None	I.S. EN 998-2 Z.A. 3

\*NPD = No Performance Determined

The performance of the product identified above is in conformity with the declared performance. This declaration of performance is issued in accordance with Regulation (EU) No 305/2011, under the sole responsibility of Roadstone Ltd.

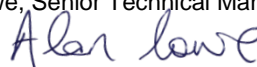
**Signed for and on behalf of the manufacturer by:** Alan Lowe, Senior Technical Manager, Roadstone Ltd.

(Name and Function)

Belgard, 09/08/2022

(Place and Date of Issue)

(Signature)



**NA to I.S. EN 1996-1-1:2005**

**Table NA.3 — Acceptable Assumed Equivalent Mixes for Prescribed Masonry Mortars**  
(Subclause 3.2.2(1))

Compressive Strength Class <sup>a</sup>	Equivalent Prescribed Mortars (Proportion of Materials by Volume) (see Note)			Mortar Designation
	Cement:Lime:Sand with or without Air Entrainment	Masonry Cement:Sand	Cement:Sand with or without Air Entrainment	
M12	1:0 to ¼:3	Not suitable	Not suitable	(i)
M6	1:½:4 to 4½	1:2½ to 3½	1:3 to 4	(ii)
M4	1:1:5 to 6	1:4 to 5	1:5 to 6	(iii)
M2	1:2:8 to 9	1:5½ to 6½	1:7 to 8	(iv)

<sup>a</sup> The number following the M is the compressive strength for the class at 28 days in N/mm<sup>2</sup>

NOTE When the sand portion is given as, for example, 5 to 6, the lower figure should be used with sands containing a higher proportion of fines whilst the higher figure should be used with sands containing a lower proportion of fines.



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Roadstone Ltd.  
Fortunestown  
Dublin 24



I.S. EN 998-2:2016 Specification for mortar for masonry. Masonry mortar

### Flomix Mortars

Characteristic	Declared Performance																												
Compressive Strength	M4 , M6 or M12 To Table NA.3 of the NA to I.S. EN 1996-1-1 (Below)																												
Portion of Constituents by Volume	To Table NA.3 of the NA to I.S. EN 1996-1-1 <table border="1" style="width: 100%; border-collapse: collapse;"> <caption>Table NA.3 — Acceptable Assumed Equivalent Mixes for Prescribed Masonry Mortars (Subclause 3.2.2(1))</caption> <thead> <tr> <th rowspan="2">Compressive Strength Class<sup>a</sup></th> <th colspan="3">Equivalent Prescribed Mortars (Proportion of Materials by Volume) (see Note)</th> <th rowspan="2">Mortar Designation</th> </tr> <tr> <th>Cement:Lime:Sand with or without Air Entrainment</th> <th>Masonry Cement:Sand</th> <th>Cement:Sand with or without Air Entrainment</th> </tr> </thead> <tbody> <tr> <td>M12</td> <td>1:0 to ¼:3</td> <td>Not suitable</td> <td>Not suitable</td> <td>(i)</td> </tr> <tr> <td>M6</td> <td>1:½:4 to 4%</td> <td>1:2% to 3%</td> <td>1:3 to 4</td> <td>(ii)</td> </tr> <tr> <td>M4</td> <td>1:1.5 to 6</td> <td>1:4 to 5</td> <td>1:5 to 6</td> <td>(iii)</td> </tr> <tr> <td>M2</td> <td>1:2.8 to 9</td> <td>1:5% to 6%</td> <td>1:7 to 8</td> <td>(iv)</td> </tr> </tbody> </table> <p><sup>a</sup> The number following the M is the compressive strength for the class at 28 days in N/mm<sup>2</sup></p> <p>NOTE When the sand portion is given as, for example, 5 to 6, the lower figure should be used with sands containing a higher proportion of fines whilst the higher figure should be used with sands containing a lower proportion of fines.</p>	Compressive Strength Class <sup>a</sup>	Equivalent Prescribed Mortars (Proportion of Materials by Volume) (see Note)			Mortar Designation	Cement:Lime:Sand with or without Air Entrainment	Masonry Cement:Sand	Cement:Sand with or without Air Entrainment	M12	1:0 to ¼:3	Not suitable	Not suitable	(i)	M6	1:½:4 to 4%	1:2% to 3%	1:3 to 4	(ii)	M4	1:1.5 to 6	1:4 to 5	1:5 to 6	(iii)	M2	1:2.8 to 9	1:5% to 6%	1:7 to 8	(iv)
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Durability against freeze/thaw	<p>Durability of a mortar is dependent on many factors including, design, detailing, masonry type and strength, exposures (ground conditions, location, wind, rain, temperatures etc.) and applied finishes. As these are design factors, advise on mortar strength should be given by a Structural Engineer. Reference should be made to S.R. 325:2013 + A2:2018 / AC 2019 Recommendations for the Design of Masonry Structures in Ireland to Eurocode 6, in particular Table 14, Durability of masonry in finished construction.</p> <p>To prevent the ingress of wind driven rain Bucket Handle and Weather Struck Joints are preferred.</p> <p>M4 - MX2.1 Low risk of saturation without Freezing (rendered MX2.2) M6 - MX2.2 High risk of saturation without Freezing M12 - MX3.2 High risk of saturation with freezing</p> <p>Mortar produced with aggregate in accordance with I.S. EN 13129 (Aggregates for mortar) and S.R. 18 :2021 (Guidance on the use of I.S. EN 13129, Aggregates for mortar)</p>																												
Dangerous Substances	None																												





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# DECLARATION OF PERFORMANCE

## Roadstone Flomix Masonry Mortar

### 1. Unique identification code of the product type:

Code	Description	Compressive Strength (N/mm <sup>2</sup> )	Portion Of Constituents By Volume		
			Cement	Lime	Sand
1720007	Flomix M4 Brick Charcoal 12.5kgs	≥4.0	1	0	6

### 2. Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4) of the CPR:

Production details can be traced via dispatch docket.

### 3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:

. I.S. EN 771-3 2011 Aggregate Concrete Masonry Units (Dense and Lightweight) intended for use as common, facing or exposed masonry in load bearing or non-load bearing building and civil engineering applications in accordance with Irish building Regulations + TGD A, B, C, D, E & L, Eurocode 6 and SR 325.

### 4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5):

Roadstone Ltd.  
Fortunestown  
Dublin 24

### 5. Not Applicable

### 6. System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR, Annex V:

System 4

### 7. Notified certification body:

Not Applicable

## 8. Declared Performance

Characteristic	Declared Performance	Harmonised Technical Specification
Compressive Strength	As shown in Table above	I.S. EN 1015-11
Portion of Constituents by Volume	As shown in Table above	I.S. EN 998-2
Bond Strength	0.15N/mm <sup>2</sup>	I.S. EN 998-2 Annex C
Chloride Content	0.066%	I.S. EN 101517
Reaction to Fire	Class A1	Based on Commission Decision 200/605 EC amending 96/603 EC
Water Absorption	NPD	N/A
Water Vapour Permeability	U15/35	I.S. EN 1745
Thermal Conductivity	(10, dry) 0.82W/mK Tabulated mean value P=50%	I.S. EN 1745
Durability against freeze/thaw	Deemed to satisfy national requirements when used in accordance with Eurocode 6 & SR 325. Mix proportions based on prescribed min cement contents in the NA. to Eurocode 6	Refer to TGD C, D, SR 325 & I.S. EN 13914 - 1 & 2  No Current European or National Test Method
Dangerous Substances	None	I.S. EN 998-2 Z.A. 3

\*NPD = No Performance Determined

9. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is issued under the sole responsibility of Roadstone Ltd.

### Signed for and on behalf of the manufacturer by:

Alan Lowe, Senior Technical Manager, Roadstone Ltd.  
(Name and Function)

Belgard, 05/01/2021  
(Place and Date of Issue)



(Signature)

# Roadstone Ltd.

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## Material Safety Data Sheet – Mortar, Renders and Screeds

<p>1. (a) <b><u>Identification of Product</u></b></p> <p>Mortar, Renders and Screeds.</p> <p>(b) <b><u>Name of Company</u></b> Roadstone Dublin Ltd. Fortunestown, Dublin 24.</p> <p><b><u>Phone</u></b> (01) 4041200</p> <p>(c) <b><u>Application</u></b></p> <p>A <b>bedding mortar</b> is designed to be laid between bricks, blocks, stone or other construction materials.</p> <p>A <b>rendering mortar</b> is designed to be applied to a wall in one or more thin coats.</p> <p>A <b>screed</b> is designed to be applied to an in-situ base and suitably finished to receive the flooring.</p> <p>Use of mortars, renders and screeds should be in accordance with the relevant National/European Union codes of practice.</p> <p>2. <b><u>Composition of Ingredients-</u></b></p> <p>(a) Mortar or render is composed of:-</p> <ul style="list-style-type: none"><li>i) Cementitious material (this may be cement or a mixture with lime).</li><li>ii) Fine aggregates.</li><li>ii) Water.</li><li>iv) Admixtures; these may be added to improve the properties of the fresh and hardened material. Pigments may be added to colour the product to customer's requirements.</li></ul>	<p>(b) The composition of a screed is similar to the above but lime is not added.</p> <p>(c) A lime sand mortar may be supplied. This is a mixture of lime and sand to which admixtures may be added. The cement is added on site. The resulting mixtures are abrasive &amp; alkaline.</p> <p>3. <b><u>Hazard Identification</u></b></p> <p>(a) <b><u>Fresh Mortar, Renders and Screeds</u></b></p> <p>Fresh mortar, renders and screeds contain cement and water with the result that an alkaline solution is produced.</p> <p>Prolonged skin contact with wet mortar, renders and screeds can result in cement burns. The abrasiveness of the constituents can aggravate the effect.</p> <p>Repeated skin contact with fresh mortar, renders and screeds over a period may cause irritant contact dermatitis. The abrasiveness of the constituents can aggravate the effect.</p> <p>Some skins are more sensitive to fresh mortar, renders and screeds and to the small amounts of chromate, which may be present and can develop allergic contact dermatitis; however this is rare.</p> <p>(b) <b><u>Hardened Mortar, Renders and Screeds</u></b></p> <p>Cutting, drilling or hammering of hardened mortar, renders or screeds can create dust. If inhaled in excessive quantities over extended periods, respirable dust can constitute a long-term hazard.</p> <p>Cutting, drilling or hammering of hardened mortar, renders and screeds unless adequately controlled, can project</p>
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### DISCLAIMER

This Material Safety Data Sheet has been prepared by the Irish Concrete Federation in consultation with its members and with technical assistance from the Industry's Safety Committee. Every care has been taken to ensure that the information contained herein is correct and accurate at the date of publication. However, the Irish Concrete Federation Ltd cannot accept any responsibility or liability for any errors, inaccuracies or omissions which may have occurred inadvertently.

particles at high velocity with consequent risk of impact damage and/or injury particularly to exposed areas of the body and eyes.



#### **4. First Aid Measures**

First aid treatment is as follows:

##### **4.1 Eye Contact (Fresh Mortar, Renders & Screeds)**

Immediately rinse under running water and seek medical advice.

##### **4.2 Skin Contact (Fresh Mortar, Renders & Screeds)**

Immediately rinse affected areas under running water.

##### **4.3 Cuts/Abrasions**

Cuts/abrasions from hardened mortar, renders or screeds, or particles of same, should be cleaned and treated using the normal First-Aid method. Wounds must receive prompt medical attention.

In all cases of doubt or where symptoms persist medical advice must be obtained.

#### **5. Fire Fighting Measures**

Not applicable.

#### **6. Accidental Release Measures**

6.1 Avoid contact with skin.

6.2 Prevent entry of fresh mortar, renders or screeds into water courses, drains or other areas where hardened materials cause problems.

6.3 Take up product using appropriate equipment.

#### **7. Handling**

7.1 Avoid contact with eyes and skin.

7.2 Before lifting

7.3 Always size up the load. Always follow safe lifting and manual handling procedures.

##### **7.3 Mortar Tubs**

Mortar tubs should only be used as a container for mortars and are not designed for any other purpose i.e. cranga.

#### **8. Exposure Controls/Personal Protection**

##### **8.1 Hand Protection**

Wear suitable protective gloves.

##### **8.2 Skin Protection**

Avoid contact with skin.  
Overalls should be worn.

##### **8.3 Eye Protection**

Wear goggles to prevent eye contact from splashing of fresh mortar, renders, and screeds, or flying particles when hammering hardened mortar, renders and screeds.

##### **8.4 Masks**

Wear appropriate respiratory protection when cutting, drilling or hammering hardened mortar, renders and screeds.

##### **8.5 Footwear**

Wear knee high rubber boots or similar with protective toecaps.

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<p>8.6 <b><u>Kneepads</u></b></p> <p>Wear kneepads when kneeling on fresh mortar, renders and screeds.</p> <p>9. <b><u>Physical &amp; Chemical Properties</u></b></p> <p>Density is typically 1.7 tonnes per cubic metre. pH level of fresh mortar, renders and screeds is typically 12.</p> <p>Mortar, renders and screeds harden through a chemical reaction between cement and water. The product is abrasive.</p> <p>10. <b><u>Stability &amp; Reactivity</u></b></p> <p>Not applicable.</p> <p>11. <b><u>Toxicological Information</u></b></p> <p>No risk upon observance of safety instructions at 6, 7 &amp; 8 above.</p> <p>12. <b><u>Ecological Information</u></b></p> <p>Fresh mortar, renders and screeds may result in change in pH level and may influence aquatic life forms.</p> <p>Hardened mortar, renders and screeds have no ecological effects.</p> <p>13. <b><u>Disposal Considerations</u></b></p> <p>Hardened mortar, renders and screeds may be recycled or placed in approved licensed landfill site.</p> <p>14. <b><u>Transportation</u></b></p> <p>No risk on observance of safety instructions at 6, 7 &amp; 8 above.</p>	<p>15. <b><u>Regulatory Information</u></b></p> <p>Not applicable.</p> <p>16. <b><u>Other Information</u></b></p> <p><b><u>Storage</u></b></p> <p>Mortar, renders and screeds can remain fresh for several days, extending the period during which the precautions given above should continue to be taken and during which access by unauthorised persons should be prevented.</p> <p><b><u>Recommended Uses and Restrictions</u></b></p> <p>Mortars, renders and screeds must be adequately cured before structural loads are imposed.</p> <p>It is recommended that users refer to BS 8000 Part 3 1989, <i>Workmanship on Building Sites</i>, for guidance on heights of lifts to avoid over stressing of Mortar in the lower courses and to allow time for the mortar to develop sufficient strength.</p> <p>Care should be taken to prevent damage to finished work due to weather and building operations.</p> <p>Temporary support should be provided to structures to prevent damage by wind.</p> <p>Issued May 2011</p>
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