TARMAC
A CRH COMPANY

TECHNICAL INFORMATION

DRY SILO MORTARS

Product Data Sheet No. 100/02

INTRODUCTION

Tarmac Dry Silo Mortars are a range of factory produced mortars, manufactured under computer controlled conditions. The constituents are dried fine aggregate (sand), cementitious materials and admixtures, together with pigments, if required. Tarmac Dry Silo Mortar is delivered direct to site in state- of-the art silos, each complete with an integral mixing unit. Once power and water have been connected, mortar can be produced at a touch of a button. The mix consistency can easily be adjusted by the site operative in order to cater for the many varied types of masonry units, from dense concrete blocks to high suction bricks (in summer/ extreme conditions, consider the use of Hydrocure & Hyrdocure+ refer to Product Data Sheet No.100/03), as well as to suit prevailing weather conditions.

PRODUCT CONFORMITY

Tarmac Dry Silo Mortars are manufactured from constituent materials conforming to the following British/European Standard specifications:

Cementitious Materials	BS EN 197-1, BS 7979
Fine aggregates	BS EN 13139
Hydrated Lime	BS EN 459-1
Admixtures	BS EN 934
Pigments	BS EN 12878

PHYSICAL PROPERTIES

COMPOSITION AND STRENGTH

The mix proportions of Tarmac dry silo mortar conform with the values specified in the following table when tested by the methods prescribed in BS EN 1015 and BS 4551.

DENSITY

Typical test results	Density kg/m^2
Fresh wet	1700 – 1900
Set and air dried	1550 - 1750

PERFORMANCE

Tarmac Dry Silo Mortars are based on performance. We would recommend you consider the following strength designations when specifying mortar mixes. Results are based on prisms made from typical production material cured and tested in accordance with the requirements of BS EN 1015 part 11.

STRENGTH

BS EN 998-2 Mortar Class	(iii) M4	(ii) M6	(i) M12
Compressive Strength N/mm^2	4	6	12

Table 1 – BS EN 998-2 compressive strengths made using prisms.

FIRE PROTECTION

Tarmac Dry Silo Mortar contains less than 1.0% organic material and is classified in accordance with BS EN 13501-1 as Class A1 without testing (Commission Directive 96/603/EC).

DURABILITY

For more details contact:
03701 116 116 mortar@tarmacbp.co.uk

Tarmac Dry Silo Mortar is air entrained which makes it less susceptible to freeze thaw attack. The admixture used to entrain air is chloride-free and therefore not aggressive towards embedded metals.

HEALTH & SAFETY

There is a real danger of contact dermatitis or serious burns. To prevent skin coming into contact with wet cement mixes such as fresh concrete, mortar or screed ensure that suitable protective clothing and eye protection us worn. Where skin contact occurs either directly or through saturated clothing wash immediately with soap and water. For eye contact, immediately wash out eyes thoroughly with clean water. If swallowed wash out mouth and drink plenty of water.
For further information please refer to Tarmac Material Safety Data Sheet – Mortars, Screeds and Renders.

APPLICATIONS

USES

Tarmac dry silo mortar is suitable for all types of construction, providing that the mortar type and strength class chosen for a particular application is suitable for its prescribed purpose. Advice on the appropriate mortar for a given application is detailed in BS EN 1996 Eurocode 6, PD6697

ECONIMICS

Tarmac dry silo mortars are sold by dry weight. Yield - when mixed on site, 1 tonne of dry silo mortar will produce approximately 0.70 cubic metres of mortar.

One cubic metre of Tarmac dry silo mortar is sufficient to lay approximately 1700 bricks (the actual number may however vary between 1300 and 2100 this depends upon the size of brick, depth of frog, size of perforations, site practice and other factors etc.) and approximately 1200 blocks of nominal size 450 x 225 x 100mm.

DELIVERY

A silo on delivery holds approximately 14 tonnes of dry material. Once sited, the silo can then be refilled by tanker to hold up to 33 tonnes in total. It is good practise to maintain the stock held within the silo allowing regular deliveries of up to 29 tonnes to ensure a continuous mortar supply.

TECHNICAL SUPPORT

Tarmac provides a comprehensive sales and technical advisory service to specifiers and customers.

A quality system has been implemented throughout the company since 1975 and quality procedures are in conformity with BS EN ISO 9001:2000. All Tarmac factories hold third party certification from the British Standards Institution. Details of the certification status of individual factories may be obtained from the technical helpdesk.

PRICES AND CONDITIONS OF SALE

Prices vary according to mix design, quantity and delivery location. For specific quotations contact your local Tarmac representative or call our National Sales Helpline on 03701 116 116.
All quotations given, orders placed and materials supplied are subject to the Conditions of Sale available via download from the Tarmac website www.tarmac.com or upon request from your nearest Tarmac Regional Office.

SUPPLY

Tarmac Dry Silo Mortars are available direct from mortar factories located strategically throughout mainland United Kingdom: contact your nearest Tarmac Building Products Regional Office for further details

ORDERING

When ordering, please state mortar type and strength class, quantity, date and preferred time of delivery. 24 hours should normally be allowed for delivery.

References British Standards Institute	
BS EN 197-1 :Part 1:2011	Cement Part 1: Composition, specifications and conformity criteria for common cements
BS 7979:2016	Specification for limestone fines for use with Portland cement
BS EN 459 : Part 1 : 2015	Building lime. Definitions, specification and conformity criteria
BS EN 12878 : 2014	Pigments for the colouring of building materials based on cement and/or lime specification and methods of test
BS EN 13139 : 2002	Aggregates for mortar
PD 6682 – 3 : 2003	Aggregates – Part 3 : Aggregates for mortar – Guidance on the use of BS EN 13139
BS EN 13501 – 1 : 2007+A1:2009	Fire classification of construction products and building elements Part 1: Classification using test data from fire reaction tests
BS 4551 : 2005 +A2:2013	Mortar – Methods of test for mortar – Chemical analysis and physical testing
BS EN 1996-1-1:2005+A1:2012	Eurocode 6. Design of masonry structures. General rules for reinforced and unreinforced masonry structures
BS EN 1996-1-2:2005	Eurocode 6. Design of masonry structures. General rules. Structural fire design
BS EN 1996-2-2006	Eurocode 6. Design of masonry structures. Design considerations, selection of materials and execution of masonry
BS EN 1996-3-2006	Eurocode 6. Design of masonry structures. Simplified calculation methods for unreinforced masonry structures
NA to BS EN 1996-1-1:2005+A1:2012	UK National Annex to Eurocode 6. Designs in masonry structures. General rules for reinforced and unreinforced masonry structures
NA to BS EN 1996-1-2:2005	UK National Annex to Eurocode 6. Design of masonry structures. General rules. Structural fire design
NA to BS EN 1996-2-2006	UK National Annex to Eurocode 6 Design of masonry structures. Design considerations, selection of materials and execution of masonry
NA to BS EN 1996-3-2006	UK National Annex to Eurocode 6. Design of masonry structures. Simplified calculation methods for unreinforced masonry structures

PD6697 : 2010	Recommendations for the design of masonry structures to BS EN 1996
PD 6678 : 2005	Guide to the selection and specification of masonry mortar
BS EN 1008	Mixing water for concrete – specification for sampling, testing and assessing the suitability of water, including water recovered from processes in the concrete industry, as mixing water for concrete
BS EN 934	Part 1 2008 Admixtures for concrete, mortar and grout: Part 2: 2009+A1:2012 Concrete admixtures – definitions, requirements, conformity, marking and labelling Part 3: 2009+A1:2012 Admixtures for masonry mortar – definitions, requirements, conformity, marking and labelling
Building Research Establishment	
Digest 361	Why do buildings crack?
Digest 362	Building mortar
Tarmac	
Product Data Sheet No. 100/01	Tarmac Ready- to- Use mortar
Product Data Sheet No. 100/03	Hydrocure &Hydrocure+ Dry Silo Mortars
Site Guide No. 3	Ready-to-use mortars
Site Guide No. 6	Winter working recommendations for mortars
Site Guide No. 7	Summer working recommendation for mortars
Tarmac Safety Data Sheet	Mortars, Screeds and Renders