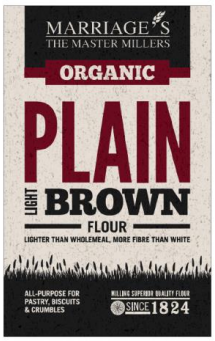
MARRIAGE'S
THE MASTER MILLERS

W&H Marriage and Sons Ltd, Chelmer Mills, New Street, Chelmsford Essex CM1 1PN
Telephone: 01245 354455, Fax: 01245 261492, Email: floursales@marriagesmillers.co.uk, Web: www.flour.co.uk

Product Technical Specification

1. Product
Organic Plain Light Brown Flour



2. Product Code
60052N

3. Bag Size
1kg

4. Description
Lighter than wholemeal, more fibre than white. An all-purpose flour for pastry, biscuits and crumbles.

5. Milling Process
Roller Milled

6. Extraction Rate (Average)
90%

7. Ingredients (Declared)
Organic flour (organic **wheat** flour, calcium, iron, niacin, thiamin)

8. Undeclared Processing Aid
None

9. Analytical Parameters

	Method	*Unit*	*Target*	*Range*
Protein (N x 5.7)	NIR	%	**9.5**	8.4 – 10.4
Moisture	NIR	%	**14.0**	13.0 – 14.8
Fallling Number	Hagberg	sec	**250+**	>250
Water Absorption	Farinograph	%	**55**	Not tested routinely
Particle Size	88.0 – 92.0% of particles less than 250µm			

10. Physical Standards and Characteristics
White free flowing powder with bran particles of varying sizes free from odours

Date Released	24/02/21	***Specification Reference***	MM-12-03-60052N-1
Date Issued	04/07/23	***Issued By***	C Bunn

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11 Shelf Life
270 days from date of packing

12. Storage
Cool dry conditions suitable for food storage

13. Country of Origin of Wheat
UK, European and Asia (May contain wheat from other sources depending on the quality and availability of the UK Harvest)

14. Nutritional Information	
Typical Values	***Per 100g***
Energy	1407
Energy	331
Fat	2.0
Of which: saturates	0.5
Carbohydrates	71.1
Of which: sugars	2.3
Protein (N x 6.25)	12.6
Salt (Na x 2.5)	Trace
Fibre	5.0

15. Packaging		
Item	***Barcode***	***Material***
1kg Pack	5011259055951	Food Grade Paper (11g) Widely Recycled Plastic closure (glue)
(6 x 1kg) Outer	05011259077953	HDPE (28g)
Pallet	-	White Wooden - Exchange

16. Labelling	
BEST BEFORE: DD/MM/YYYY **YYDDD HH:MM XXXXX**	YYDDD – Packing Date (Year and Julian Day) HH:MM - Packing Time XXXXX – Batch Code

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17. Allergens
Wheat gluten is present in all products. Other cereal glutens such as rye, barley and spelt may be present. No other allergens are used within the flour mill The products on the flour mill are produced without the addition of soya in a mill which does not process soya but within a supply chain which handles soya and where a risk may exist. **nabim 2014.** Egg, Maize, Soya, Fishmeal, Milk powder, Sesame and Peanuts are used or stored on site in a separate factory and warehouse

18. Microbiological
Selected wheats and flours are tested every six months for a range of microbiological species including yeasts and moulds, listeria, bacillus cereus and ecoli. Flour is intended for further thermal processing and therefore should be cooked before eating.

19. Mycotoxins
Selected wheats and flours are tested every 3 months. In addition to this, intakes of wheat into the mill are assessed and a DON test will be carried out if required.

20. Pesticide Residues
Selected wheats and flour are tested every six months

21. Other Contaminant Testing
We participate in nabim/HGCA contaminant monitoring surveys throughout the year which include heavy metal testing.

22. Genetically Modified Policy
We are not aware of any GM wheat that is grown commercially. Furthermore the alpha-amylase and other additives used in the production of our are flours are from non GM production systems. To the best of our knowledge the flour, bran and wheatfeed that we produce is GM free.

23. HACCP
We operate a HACCP system based on codex alimentarius to ensure food safety. Our multidisciplinary team are all qualified to Intermediate HACCP level three.

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24.	Product Safety Data Sheet for Wheat Flour
Product:	Wheat flour is produced by milling cleaned wheat grain or endosperm of cleaned wheat grain.
Uses:	Flour is mainly used in the manufacture of bread, confectionery, other food stuffs and for various industrial purposes.
Legislation:	Flour is produced so as to comply with the requirements of the Food safety Act. (EC) No 1169/2011, Calcium carbonate purity meets the criteria under (EU) No 231/2012
Delivery:	Flour is usually supplied either by bulk tanker or in paper bags of various weights of 1.0kg up to 25kg.
Static Electricity:	The pneumatic intake of flour from bulk tankers can give rise to static electricity. Accordingly, it is essential for blowlines to be earthed; suitable earthing points must be provided at the discharge point.
Manual Handling:	All manual handling operations, including those involving flour bags, should be the subject of a risk assessment appropriate to the environment and the physical characteristics of the handlers.
Storage:	In bulk, flour should be stored at ambient temperature in dry bins. Bagged flour should be stored in cool, dry conditions.
Health:	In normal use, wheat flour does not present a serious health risk and ingestion has no adverse effects. However, to comply with the Control of Substances Hazardous to Health Regulations and for the general health reasons outlined below, it is necessary to reduce – so far as is reasonably practicable – personal exposure to any dust through enclosure, ventilation and the provision and use of any personal protective equipment. ***Inhalation***: Flour dust may cause asthmatic reactions in a small proportion of susceptible employees. The health of employees exposed to dust should be monitored and any necessary action taken. ***Eyes:*** Flour dust may cause discomfort and the eyes should be washed with running water. Medical advice should be sought if the discomfort persists. ***Skin:*** Flour can have a drying effect on the skin but is only very rarely, if ever, the cause of dermatitis.
Hygiene:	Dust formation should be minimised during handling to prevent inhalation and skin contact. Overalls and dust respirators are recommended when handling loose materials. Spillages should be removed without delay to maintain hygiene standards and to minimise the level of dust in the atmosphere. Vacuum cleaning should be used wherever possible. High standards of personal hygiene should be maintained to avoid the possibility of dermatitis or product contamination.

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Fire / Explosion:	Like most organic materials, flour dust is flammable. Although not especially combustible, in certain circumstances flour can form explosive clouds if ignited. The following precautions should be taken to minimise this risk: • Adequate extraction facilities should be provided in all areas subject to dust. • Care should be taken to prevent the formation of dust clouds in storage and conveying plant. • Potential sources of ignition should be avoided. • Silos and appropriate equipment, including blowlines, should be earthed to prevent ignition by electrostatic discharge. • Adequate explosion venting should be fitted to silos and other appropriate equipment. • Smoking must be prohibited near storage and handling areas. • Build-up of dust on beams and ledges should be prevented as this represents a potential dust cloud. Further information on this matter is available in: "The prevention of dust explosions in flour mills and bulk flour containers", **nabim**, 21 Arlington Street, London. SW1A 1RN.
TECHNICAL DATA	
Particle Size:	Particles range from 2.5 mm down to smaller than 250 microns. 70% of particles are smaller than 250 microns.
Specific Heat:	0.42kcal/kg°C
Explosive Concentrations	Above 50 g m^{-3}.
Ignition Temperature	A cloud of flour in air can be ignited by surfaces at temperatures of 400 °C. Layers of flour on a hot surface can smoulder at temperatures of 200 °C, leading to flames and ignition.
Minimum Ignition *Energy*	A cloud of flour in air requires an minimum ignition energy of 300MJ. This is the lowest value obtained with a number of flour types.
Kst Values	Comprehensive tests on flour indicate a range of Kst between 74 and 137 bar m s^{-1} depending on particle size distribution and moisture content.
Density	*Wholemeal Flours: circa 520* kg m^{-3} *White Flours: circa 550* kg m^{-3}

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25. Relevant Accreditations
British Retail Consortium Campden Laboratory Accredition Scheme / nabim intake scheme Organic Food Federation

26. Disclaimer
W & H Marriage and Sons Ltd warrant to supply flour conforming to the above specification. In taking flour conforming to this specification you agree that it is suitable for your requirements.

27. Specification Authorisation	
	Simon Fortis Technical Manager **24th February 2021**