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# Sealants (Phoenix Sealants)

## Contents

### Phoenix Sealants

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**winvic**

winvic.co.uk

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# Contents

**Scope of Works**

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**Data Sheets**



**winvic**

[winvic.co.uk](http://winvic.co.uk)

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## Scope of Works



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Works undertaken / supplied (The Scope) Joint Sealing(Mastic Pointing)

- Schedules of equipment provided N/A
- Plant descriptions N/A
- Handling, loading & installation instructions N/A
- Operating directions N/A
- Maintenance instructions, regimes and schedules N/A
- Dismantling and or disposal directions N/A
- Spares and consumables details inc. sources N/A
- COSHH data where applicable Attached
- Serial No's. and specific identification codes N/A
- Cleaning requirements Self cleaning
- Drawings and/or wiring diagrams N/A
- Associated test and calibration certificates N/A
- Technical literature Attached

Materials used:

Internal Concrete floor slab: Arbomeric Mp20 & Arbokol AG2

External Concrete floor slab: Arbomeric Mp20

Internal silicone to office areas: Arbosil LM

Internal silicone to toilets/tiled areas: Arbosil HM & Arbosil LM

External silicone to personnel doors: Arbosil LM

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## **Certificates/Warranties/Guarantees**

**N/A**



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## **Cleaning and Maintenance Regimes**

**N/A**



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## Data Sheets



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CS-00009

CALDER PARK

WAKEFIELD



## ARBOKOL AG2 Gun Grade

Arbokol AG2 is a two part Polysulphide Sealant which cures once the two components are mixed together to give a flexible rubber seal. It has good adhesion to concrete, stone, metals and many other common building substrates.

### MAIN APPLICATIONS

Recommended for sealing structural floor joints, parapet wall joints, concrete roadways and pavements, hard standing floor pads, joints in metal and concrete sea walls and joints in water retaining (non drinking water) structures.

For very heavily trafficked floor joints it is recommended that the level of Arbokol AG2 is recessed. Please contact Adshead Ratcliffe Technical Services Department for further information.

Not recommended for use with potable water.

**Caution:** For joints in sports stadiums please contact Adshead Ratcliffe Technical Services Department for further information.

### APPLICATION INSTRUCTIONS

#### Joint preparation

The joint surfaces must be clean, dry and free from all contamination. The surfaces should be degreased using the appropriate Arbo Cleaner.

Primers may be required on some substrates. It is recommended that Adshead Ratcliffe Technical Services Department should be consulted and advice obtained with regard to the choice of primer for specific purposes.

#### Mixing

The base and curing agent ratio controls the adhesion, strength and durability of Arbokol AG2. The components must therefore be thoroughly mixed.



## Application

The normal method of application is to fill the mixed sealant into Arbo Barrel Guns using a heavy duty follower plate.

The sealant should be extruded firmly into the joint by maintaining an even pressure on the trigger of the gun.

All joint preparation, priming, and sealant application should be carried out in accordance with BS 8000 Part 16, the British Standard for the sealing of joints in buildings.

## Joint Backing

Where applicable, appropriate joint filler e.g. closed cell polyethylene foam, should be used to provide the correct joint depth.

### TECHNICAL DATA

Work Life at 20°C:	1 - 1½ hours (other times may be possible – please consult Adshead Ratcliffe for further information)
Application Temperature:	+5°C to + 40°C
Service Temperature:	-40°C to + 80°C
Typical Shore Hardness:	25
Cure Rate at 20°C/65 % RH:	3 days at 20°C in a typical joint. At lower temperatures cure rate will be slower.
Chemical Resistance:	Resistant to most dilute acids and alkalis, petrol, diesel, jet fuel and many solvents and vegetable oils
Service Life:	20 years+ (when used in trafficked areas or other special environments, service life may be reduced).
UV Resistance::	Good
Movement Accommodation:	
Butt joints (movement in tension and compression):	30 %
Lap Joints (movement in shear):	50 %
Colours:	Grey

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**JOINT SIZE SUITABILITY****Joint Width**

Minimum 6mm

Maximum 25mm (single application);  
50 mm (multiple applications)

**Joint Depth**

Minimum 10mm on porous substrates  
(12mm in floor joints)

Minimum 6mm on non porous substrates  
(12mm in floor joints)

Maximum 25mm

**Width: Depth ratio (within above min/max restrictions)**

2:1 butt joints

1:1 floor joints

**PACKAGING**

2.5 Litre pack (includes base and curing agent)

**STORAGE LIFE**

9 months in original unopened packaging  
stored in a cool, dry place out of direct  
sunlight.

**HEALTH AND SAFETY.**

Contains Manganese Dioxide. Please  
consult Material Safety Data Sheets for full  
information.

**ACCESSORIES****Primers**

Arbo AG2 Porous Primer (500ml tin)  
Yield approximately 125 metres  
per tin

Arbo Primer 7781 (500ml tin) Yield  
approximately 200 metres per tin

**Cleaners**

Arbo Cleaner No.17- 1 Litre Tin  
(Xylene based – not suitable for use  
with plastics or delicate finishes)  
Arbo Cleaner No. 16 - 1 Litre Tin  
(Alcohol Based)

**Ancillary Equipment**

Bulk Loading Guns  
Heavy Duty Follower Plates

**QUANTITY ESTIMATOR**

JOINT SIZE (MM)	METRES/ LITRE
6 x 6	27.8
9 x 6	18.5
12 x 9	9.3
18 x 18	3.0
25 x 25	1.6

**SPECIFICATION COMPLIANCES**

BS EN ISO 11600 F 25 LM

BS 4254:1983



Certified under the Harmonized European Standard  
EN15651. Please refer to separate Declaration of  
Performance for more details.

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# ARBO

## ARBOMERIC MP20

ARBOMERIC MP20

Arbomeric MP20 is a one part high modulus modified polymer sealant which cures on exposure to moisture vapour to form a tough but elastic rubber.

### MAIN APPLICATIONS

Arbomeric MP 20 is recommended for use in many forms of construction including structural joints in heavy cladding, structural movement joints in floors and floor joints in heavily trafficked areas.

**NB** Not recommended for joints in lightweight cladding and swimming pools.

Is over-paintable once fully cured; pre-use tests are advised to demonstrate compatibility with individual paints.

### APPLICATION INSTRUCTIONS

#### Joint preparation

The joint surfaces must be clean, dry and free from all contamination. The surfaces should be degreased using the appropriate Arbo Cleaner. Primers may be required on some substrates. It is recommended that Adshead Ratcliffe Technical Services Department should be consulted and advice obtained with regard to the choice of primer for specific purposes.

#### Joint Backing

Where applicable, appropriate joint filler e.g. closed cell polyethylene foam, should be used to provide the correct joint depth.

All joint preparation, priming, and sealant application should be carried out in accordance with BS 8000 Part 16, the British Standard for the sealing of joints in buildings using sealants.

#### Application

Arbomeric MP20 is supplied in polyethylene 380ml cartridges and 600ml foils



TECHNICAL DATA	
Skin Time at 20°C/65% RH:	15 minutes
Application temperature:	+5°C to +35°C
Service temperature:	-40°C to +120°C
Chemical resistance:	Resistant to most dilute acids and alkalis. Organic solvents may cause the sealant to swell and lose adhesion. Strong cleaning agents can cause surface deterioration and may affect the efficiency of the material.
UV resistance:	Very good
Service life:	20 years + (when used in trafficked areas the life may be reduced)
Movement Accommodation:	
Butt joints (movement in tension and compression):	35%
Lap joints (movement in shear):	70%
Colours:	White, Grey, Black
Modulus @ 100 % Extension:	1.12 N/mm <sup>2</sup>
Ultimate Elongation:	220%
Tensile Strength @ Break:	1.85 N/mm <sup>2</sup>

## JOINT SIZE SUITABILITY

### Joint Width

Minimum 6mm

Maximum 25mm (single application); 35mm (multiple applications)

### Joint Depth

Minimum 10mm on porous substrates (12mm in floor joints)

Minimum 6mm on non-porous substrates (12mm in floor joints)

Maximum 20mm

### Width: Depth ratio (within above min/max restrictions)

2:1 butt joints

1:1 lap joints/floor joints

## PACKAGING

25 x 380ml Polyethylene Cartridges per box. Polyethylene Nozzles are included in each box.

## STORAGE LIFE

12 months in original unopened packaging stored in a cool, dry place out of direct sunlight.

## HEALTH AND SAFETY

No particular health hazards are associated with this product but please consult Material Safety Data Sheet for full information.

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## ACCESSORIES

### Primers

Arbo Primer 2650 (500ml tin) Yield approximately 125 metres per tin

### Cleaners

Arbo Cleaner No.17- 1 Litre Tin  
(Xylene based – not suitable for use with plastics or delicate finishes)  
Arbo Cleaner No. 16 - 1 Litre Tin  
(Alcohol Based)

### Ancillary Equipment

Polyethylene Nozzles  
Arbo Caulking Guns

## QUANTITY ESTIMATOR

JOINT SIZE (MM)	METRES/ LITRE
6 x 6	27.8
9 x 6	18.5
12 x 9	9.3
18 x 10	5.6
25 x 10	4.0

## SPECIFICATION COMPLIANCE

BS EN ISO 11600 – F – 20 HM



Certified under the Harmonized European Standard EN15651. Please refer to separate Declaration of Performance for more details.

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## SAFETY DATA SHEET ARBOSIL HDLM

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name ARBOSIL HDLM

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.3. Details of the supplier of the safety data sheet

Supplier Adshead Ratcliffe & Co. Ltd.  
Derby Road, Belper  
Derbyshire.  
DE56 1WJ  
Tel. (+44) 01773 826661  
Fax. (+44) 01773 821215  
sds@arbo.co.uk

#### 1.4. Emergency telephone number

Emergency telephone (+44) 01773 826661 (office hours only)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification

Physical hazards Not Classified  
Health hazards Skin Sens. 1 - H317  
Environmental hazards Not Classified

#### 2.2. Label elements

##### Pictogram



Signal word Warning  
Hazard statements H317 May cause an allergic skin reaction.  
Precautionary statements P280 Wear protective gloves.  
Contains METHYL-0,0',0''-BUTAN-2-ONE-TRIOXIMOSILANE

#### 2.3. Other hazards

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

## ARBOSIL HDLM

<b>METHYL-0,0',0"-BUTAN-2-ONE-TRIOXIMOSILANE</b>		<b>1-5%</b>
CAS number: 22984-54-9	EC number: 245-366-4	
<b>Classification</b>		
Eye Irrit. 2 - H319		
Skin Sens. 1 - H317		
STOT RE 2 - H373		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General information</b>	In all cases of doubt, or if symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
<b>Inhalation</b>	If inhalation causes adverse effects, remove to fresh air.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give plenty of water to drink. Give milk instead of water if readily available. Do not induce vomiting. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Wipe off excess material with cloth or paper. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing. In the event of any sensitisation symptoms developing, ensure further exposure is avoided.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

#### 4.2. Most important symptoms and effects, both acute and delayed

<b>Inhalation</b>	No specific symptoms known.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	Allergic rash.
<b>Eye contact</b>	May cause temporary eye irritation.

#### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	No specific recommendations.
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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Water spray, fog or mist. Foam, carbon dioxide or dry powder.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	No unusual fire or explosion hazards noted.
<b>Hazardous combustion products</b>	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

#### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	No specific firefighting precautions known.
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## ARBOSIL HDLM

**Special protective equipment for firefighters**      Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**      Wear appropriate protective clothing. Avoid contact with eyes and skin.

#### 6.2. Environmental precautions

**Environmental precautions**      Do not discharge into drains or watercourses or onto the ground.

#### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up**      Collect and place in suitable waste disposal containers and seal securely. Clean any slippery coating that remains using a detergent / soap solution or other biodegradable cleaner.

#### 6.4. Reference to other sections

**Reference to other sections**      For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions**      Avoid spilling. Avoid contact with skin and eyes. Persons susceptible to allergic reactions should not handle this product. Good personal hygiene procedures should be implemented.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions**      Store in tightly-closed, original container in a dry, cool and well-ventilated place.

**Storage class**      Unspecified storage.

#### 7.3. Specific end use(s)

**Specific end use(s)**      The identified uses for this product are detailed in Section 1.2.

**Usage description**      Gunnable sealant.

### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

#### 8.2. Exposure controls

##### Protective equipment



**Appropriate engineering controls**      Provide adequate ventilation.

**Eye/face protection**      Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

**Hand protection**      Use protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

**Hygiene measures**      Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated.

**Respiratory protection**      No specific recommendations.

## ARBOSIL HDLM

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	Various colours.
Odour	Slight.
Odour threshold	Not determined.
pH	pH (concentrated solution): Not applicable.
Melting point	Not applicable.
Initial boiling point and range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	1.28 @ 20C
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not determined.
Viscosity	~ 10,000 P @ 20°C
Explosive properties	Not applicable.
Oxidising properties	Not applicable.

#### 9.2. Other information

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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#### 10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. Moisture curing process releases: a small amount of butanone-2-oxime (MEKO)
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#### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not known. Will not polymerise.
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#### 10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.
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#### 10.5. Incompatible materials

## ARBOSIL HDLM

**Materials to avoid** Strong oxidising agents.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** Butanone-2-oxime (MEKO) is damaging to nasal membranes in rats and mice at a concentration in excess of 10ppm over a prolonged period of time.

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** For this endpoint no toxicological data is available for the whole product.

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** For this endpoint no toxicological data is available for the whole product.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** For this endpoint no toxicological data is available for the whole product.

#### Skin corrosion/irritation

**Animal data** Based on available data the classification criteria are not met.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Based on available data the classification criteria are not met.

#### Skin sensitisation

**Skin sensitisation** The product contains a small amount of a sensitising substance which may cause an allergic reaction in sensitive individuals.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Does not contain any substances known to be mutagenic.

#### Carcinogenicity

**Carcinogenicity** Does not contain any substances known to be carcinogenic.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Does not contain any substances known to be toxic to reproduction.

#### Specific target organ toxicity - single exposure

**STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.

#### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

#### Aspiration hazard

**Aspiration hazard** Not relevant, due to the form of the product.

**Inhalation** No specific symptoms known.

**Ingestion** May cause discomfort if swallowed.

**Skin contact** May cause sensitisation by skin contact.

**Eye contact** May cause irritation to eyes.

## SECTION 12: Ecological Information

## ARBOSIL HDLM

**Ecotoxicity** In cross-linked state not soluble in water. Easily separable from water by filtration.

### 12.1. Toxicity

**Toxicity** There are no data for the product.

### 12.2. Persistence and degradability

**Persistence and degradability** This product is not expected to be readily biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

**Partition coefficient** Not applicable.

### 12.4. Mobility in soil

**Mobility** The product is insoluble in water.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

## **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

**General information** Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Disposal methods** Confirm disposal procedures with environmental engineer and local regulations.

**Waste class** Recommended EWC Code 08 04 09\* HP13 Sensitising

## **SECTION 14: Transport information**

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

No information required.

### 14.2. UN proper shipping name

No information required.

### 14.3. Transport hazard class(es)

No information required.

### 14.4. Packing group

No information required.

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.

### 14.6. Special precautions for user

No information required.

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

## ARBOSIL HDLM

Transport in bulk according to No information required.  
Annex II of MARPOL 73/78  
and the IBC Code

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation Regulation (EC) 1907/2006 REACH.  
Regulation (EC) 1272/2008 CLP.

Guidance Workplace Exposure Limits EH40.

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

Revision comments	Classification and labelling according to CLP Regulations.
Revision date	01/06/2015
Supersedes date	18/08/2014
SDS number	10430
Hazard statements in full	H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H373 May cause damage to organs (Blood) through prolonged or repeated exposure if swallowed.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

# ARBO

## ARBOSIL HM

ARBOSIL HM

Arbosil HM is a One-part High Modulus Acetoxy Cure Silicone Sealant, which cures rapidly on exposure to moisture vapour to form a resilient elastic silicone rubber. This product contains a fungicide to make it resistant to fungus and mildew. Arbosil HM bonds well to acrylic, ceramic, metal, glass and laminate surfaces, and will not discolour during its service life, whilst maintaining good elasticity.

### MAIN APPLICATIONS

This product is recommended for the sealing around all types of sanitary fittings including baths, showers, urinals, sinks and wash basins in both domestic and commercial locations.

It is suitable for use in areas of high humidity.

Can be used as to seal around laminates and worktops.

Suitable for both interior and exterior use.

Use for sealing of aluminium sheets and components.

Use as an adhesive to bond PVC trims.

**NB:** It is not recommended for overpainting, or use against most metal surfaces particularly soft metals like brass or lead, and is not for use against natural stone. (Contact Adshead Ratcliffe Technical Services for advice on which product to use against these substrates).





## APPLICATION INSTRUCTIONS

### Joint Preparation

The joint surfaces must be clean, dry and free from all contamination and any loose materials. The surfaces should be degreased using the appropriate Arbo Cleaner. Primers may be required on some substrates. It is recommended that Adshead Ratcliffe Technical Services Department should be consulted and advice obtained with regard to the choice of primer for specific purposes.

### Joint Backing

Where applicable, appropriate joint filler e.g. closed cell polyethylene foam, should be used to provide the correct joint depth.

### Application

Arbosil HM is supplied in cartridges and can be applied into the joint using an Arbo Caulking Gun. All joint preparation, priming, and sealant application should be carried out in accordance with BS 8000 Part 16, the British Standard for the sealing of joints in buildings using sealants.

## TECHNICAL DATA

Colours	White, Black, Translucent, Aluminium, Jasmine, Manhattan.
Skin Time at 20° C/65 % RH:	10 minutes
Application Temperature:	+ 5° C to + 50° C
Service Temperature:	- 50° C to + 150° C
Typical Shore Hardness:	20
Cure Rate at 20° C/65 % RH:	2mm/24 hours
Chemical Resistance:	Resistant to most alkalis and dilute acids; organic solvents may cause the sealant to swell and lose adhesion, but do not directly dissolve the sealant.
UV Resistance:	Very Good
Service Life:	25 years+
Movement Accommodation:	Butt joints (movement in tension and compression): 25 %. Do not exceed $\pm 20$ % in any one direction
Lap joints (movement in shear):	50 %. Do not exceed $\pm 40$ % in any one direction

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**JOINT SIZE SUITABILITY****Joint Width**

Minimum 6mm

Maximum 25mm (single application);

35mm (multiple applications)

**Joint Depth**

Minimum 10mm on porous substrates

Minimum 6mm on non-porous substrates

Maximum 15mm

**Width: Depth ratio**

**(within above min/max restrictions)**

2:1 butt joints

1:1 lap joints

**STORAGE LIFE**

12 months in original unopened package stored in a cool, dry place out of direct sunlight. Protect from frost.

**HEALTH & SAFETY**

No particular health hazards are associated with this product but please consult Material Safety Data Sheet for full information.

**PACKAGING**

25 x 310ml plastic cartridges. Polyethylene nozzles are included in each box.

**ACCESSORIES****Primers**

Arbo Primer 2650 500ml tin (yield approximately 125 metres per tin)

Arbo Primer 2402 500ml tin (yield approximately 200 metres per tin)

Arbo Primer 2172 500ml tin (yield approximately 200 metres per tin)

Please refer to Adshead Ratcliffe Technical Services for which primers to be used with individual substrates.

**Cleaners**

Arbo Cleaner No. 15 - 500ml Tin

(Ketone based - suitable for unpainted metal, concrete, brick and glass)

Arbo Cleaner No. 16 - 1 Litre Tin

(Xylene based - suitable for unpainted metal, concrete and brick)

Please refer to Adshead Ratcliffe Technical Services for advice on which cleaner to use.

**Ancillary Equipment**

Polyethylene Nozzles

Arbo Caulking Guns

Arbo Silicone Tooling Block

Latex Gloves

Two Ply Small Blue Wipes

**SPECIFICATION COMPLIANCE**

BS EN ISO 11600 F/G 20HM



Certified under the Harmonized European Standard EN15651. Please refer to separate Declaration of Performance for more details.

**QUANTITY ESTIMATOR**

JOINT SIZE (MM)	METRES/LITRE
6 x 6	27.75
9 x 6	18.50
12 x 9	9.25
18 x 10	5.55
25 x 10	4.0

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## SAFETY DATA SHEET ARBOSIL HM

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name ARBOSIL HM

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses General purpose silicone sealant Glass and sanitary sealant

#### 1.3. Details of the supplier of the safety data sheet

Supplier Adshead Ratcliffe & Co. Ltd.  
Derby Road, Belper  
Derbyshire.  
DE56 1WJ  
Tel. (+44) 01773 826661  
Fax. (+44) 01773 821215  
sds@arbo.co.uk

#### 1.4. Emergency telephone number

Emergency telephone (+44) 01773 826661 (office hours only)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

#### 2.2. Label elements

#### 2.3. Other hazards

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

Composition comments Polydimethylsiloxane with fillers, auxiliaries. acetoxysilane crosslinking agent.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

General information	In all cases of doubt, or if symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Get medical attention if a large quantity has been ingested. Show this Safety Data Sheet to the medical personnel.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

#### 4.2. Most important symptoms and effects, both acute and delayed

## ARBOSIL HM

Inhalation	May cause discomfort.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

### 4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	See Section 4.1
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	Water spray. Foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

Specific hazards	No unusual fire or explosion hazards noted.
Hazardous combustion products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Acetic acid.

### 5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours.
Special protective equipment for firefighters	Wear self contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Provide adequate ventilation. Avoid inhalation of vapours and contact with skin and eyes. Wear personal protective equipment (See section 8).
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### 6.2. Environmental precautions

Environmental precautions	Do not allow into watercourses. Contain spillage with sand, earth or other suitable non-combustible material.
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### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Collect and place in suitable waste disposal containers and seal securely. Clean any slippery coating that remains using a detergent / soap solution or other biodegradable cleaner.
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### 6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see section 13.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Usage precautions	Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Good personal hygiene procedures should be implemented.
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### 7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place.
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**Storage class** Unspecified storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

**Usage description** Gunnable sealant.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls

#### Protective equipment



**Appropriate engineering controls** Provide adequate ventilation.

**Eye/face protection** Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

**Hand protection** For prolonged or repeated skin contact use suitable protective gloves. It is recommended that gloves are made of the following material: Viton rubber (fluoro rubber). Gloves suitable for up to 60 minutes use.

**Other skin and body protection** Wear appropriate clothing to prevent repeated or prolonged skin contact.

**Hygiene measures** No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products. Wash at the end of each work shift and before eating, smoking and using the toilet.

**Respiratory protection** If ventilation is inadequate, suitable respiratory protection must be worn. Use of ABEK mask filter during prolonged exposure advised.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

**Appearance** Uncured -paste. Cured - rubber.

**Colour** Various colours.

**Odour** Pungent.

**Odour threshold** Acetic acid: 0.025 mg/m<sup>3</sup>

**pH** Product displays acidic reaction with water.

**Melting point** Not applicable.

**Initial boiling point and range** Not applicable.

**Flash point** Not applicable.

**Evaporation rate** Not applicable.

**Evaporation factor** Not applicable.

**Upper/lower flammability or explosive limits** Lower flammable/explosive limit: 4 (acetic acid) Upper flammable/explosive limit: 17 (acetic acid)

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Vapour pressure	Not applicable.
Vapour density	Not applicable.
Solubility(ies)	Practically insoluble Hydrolytic decomposition occurs.
Partition coefficient	: Not applicable.
Auto-ignition temperature	~ 400°C
Decomposition Temperature	Not determined.
Viscosity	~8000 P @ 20°C
Explosive properties	Not applicable.
Explosive under the influence of a flame	No
Oxidising properties	Does not meet the criteria for oxidising.

### 9.2. Other information

Other information	None.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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### 10.2. Chemical stability

Stability	Stable at normal ambient temperatures. Moisture curing process releases: a small amount of acetic acid
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### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not known. Will not polymerise.
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### 10.4. Conditions to avoid

Conditions to avoid	Avoid contact with the following materials: Water, moisture.
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### 10.5. Incompatible materials

Materials to avoid	Reacts with water, basic substances and alcohols. Reaction causes the formation of acetic acid.
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	By hydrolysis: Acetic acid. Temperatures of ~ 150 C may generate: A small amount of formaldehyde, through oxidation.
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

Notes (oral LD <sub>50</sub> )	Assessed on the basis of constituents; LD50, oral, rat >2000mg/Kg. Conclusion by analogy. ATE (mixture) oral >5000mg/Kg
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#### Acute toxicity - dermal

Notes (dermal LD <sub>50</sub> )	LD50, dermal, rabbit >2009mg/Kg Conclusion by analogy.
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#### Skin corrosion/irritation

Animal data	Not irritating (rabbit). Conclusion by analogy.
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### Serious eye damage/irritation

**Serious eye damage/irritation** Not irritating (rabbit). Conclusion by analogy.

### Skin sensitisation

**Skin sensitisation** For this endpoint no toxicological data is available for the whole product.

### Germ cell mutagenicity

**Genotoxicity - in vitro** For this endpoint no toxicological data is available for the whole product.

### Carcinogenicity

**Carcinogenicity** For this endpoint no toxicological data is available for the whole product.

### Reproductive toxicity

**Reproductive toxicity - fertility** For this endpoint no toxicological data is available for the whole product.

### Specific target organ toxicity - single exposure

**STOT - single exposure** For this endpoint no toxicological data is available for the whole product.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** For this endpoint no toxicological data is available for the whole product.

### Aspiration hazard

**Aspiration hazard** Not relevant, due to the form of the product.

### **Inhalation**

No specific health hazards known.

### **Ingestion**

No harmful effects expected from quantities likely to be ingested by accident.

### **Skin contact**

Skin irritation should not occur when used as recommended.

### **Eye contact**

Evaluation in analogy to a tested similar product: Slight irritation possible.

### **Acute and chronic health hazards**

Moisture curing process releases a small amount of acetic acid which can irritate skin and mucous membranes.

## SECTION 12: Ecological Information

### 12.1. Toxicity

**Toxicity** There are no data for the product. Toxicity to fish is improbable.

### 12.2. Persistence and degradability

**Persistence and degradability** Silicone content: biologically not degradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** Bioaccumulation in aquatic organisms is not expected.

**Partition coefficient** : Not applicable.

### 12.4. Mobility in soil

**Mobility** The product is insoluble in water.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

**Other adverse effects** None known.

## ARBOSIL HM

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

General information	When handling waste, the safety precautions applying to handling of the product should be considered.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Confirm disposal procedures with environmental engineer and local regulations.
Waste class	Recommended EWC Code 08 04 10

### SECTION 14: Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).
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#### 14.1. UN number

No information required.

#### 14.2. UN proper shipping name

No information required.

#### 14.3. Transport hazard class(es)

No information required.

#### 14.4. Packing group

No information required.

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant  
No.

#### 14.6. Special precautions for user

No information required.

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation	Regulation (EC) 1907/2006 REACH (as amended). Regulation (EC) 1272/2008 CLP (as amended).
Guidance	Workplace Exposure Limits EH40.

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

Revision comments	General review
Revision date	09/05/2017

**ARBOSIL HM**

<b>Revision</b>	1
<b>Supersedes date</b>	17/06/2015
<b>SDS number</b>	20332

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



# ARBO

## ARBOSIL LM

ARBOSIL LM

Arbosil LM is a one part Neutral Cure Silicone Sealant which cures on exposure to moisture vapour to form an elastic silicone rubber.

### MAIN APPLICATIONS

Recommended for perimeter sealing of PVCu frames and sealing joints in brickwork, the MVP and Heel Bead methods of glazing insulating glass units, remedial glazing, and sealing joints in translucent roofing sheets.

**NB:** It is not recommended for overpainting, use in glass wall assemblies and use against natural stone.

### APPLICATION INSTRUCTIONS

#### Joint Preparation

The joint surfaces must be clean, dry and free from all contamination. The surfaces should be degreased using the appropriate Arbo Cleaner. Primers may be required on some substrates. It is recommended that Adshead Ratcliffe Technical Services Department should be consulted and advice obtained with regard to the choice of primer for specific purposes.

#### Joint Backing

Where applicable, appropriate joint filler e.g. closed cell polyethylene foam, should be used to provide the correct joint depth. All joint preparation, priming, and sealant application should be carried out in accordance with BS 8000 Part 16, the British Standard for the sealing of joints in buildings using sealants.

#### Application

Arbosil LM is supplied in polyethylene 310 and 380ml cartridges and can be applied into the joint using an Arbo Caulking Gun





## TECHNICAL DATA

Colours	White, Black, Grey, Translucent, Anthracite, Brown, Buff, Dark Bronze, Portland, Rustic Red, Magnolia.
Skin Time at 20° C/65 % RH (Coloured Grades):	10 minutes
Skin Time at 20° C/65 % RH (Translucent Grade):	20 minutes
Application Temperature:	+ 5° C to + 40° C
Service Temperature:	- 40° C to + 120° C
Typical Shore A Hardness:	30
Cure Rate at 20° C/65 % RH:	2mm/24 hours
Chemical Resistance:	Resistant to most dilute acids and alkalis. Organic solvents may cause the sealant to swell and lose adhesion.
UV Resistance:	Very Good
Service Life:	25 years+
Movement Accommodation:	Butt joints (movement in tension and compression): 50 %. Do not exceed $\pm 33$ % in any one direction
Lap joints (movement in shear):	100 %. Do not exceed $\pm 66$ % in any one direction

## JOINT SIZE SUITABILITY

**Joint Width**

Minimum 6mm

Maximum 25mm (single application);  
50mm (multiple applications)

**Joint Depth**

Minimum 10mm on porous substrates

Minimum 6mm on non-porous substrates

Maximum 15mm

**Width: Depth ratio**

(within above min/max restrictions)

2:1 butt joints

1:1 lap joints

## STORAGE LIFE

12 months in original unopened packaging stored in a cool, dry place out of direct sunlight.

## HEALTH &amp; SAFETY

Contains Oximosilanes (Not Translucent Grade). Please consult Material Safety Data Sheets for full information LM Translucent has its own Material Safety Data Sheet.

## PACKAGING

25 x 310ml or 380ml Polyethylene Cartridges per box. Polyethylene Nozzles are included in each box.

## ACCESSORIES

### Primers

Arbo Primer 2650 (500ml tin) Yield approximately 125 metres per tin

Arbo Primer 2402 (500ml tin) Yield approximately 200 metres per tin

Arbo Primer 2172 (500ml tin) Yield approximately 200 metres per tin

### Cleaners

Arbo Cleaner No.17- 1 Litre Tin  
(Xylene based – not suitable for use with plastics or delicate finishes)

Arbo Cleaner No. 16 - 1 Litre Tin  
(Alcohol Based)

### Ancillary Equipment

Polyethylene Nozzles

Arbo Caulking Guns

## SPECIFICATION COMPLIANCE

BS EN ISO 11600 – F/G – 25 LM

BS 5889 Type A: 1989



Certified under the Harmonized European Standard EN15651. Please refer to separate Declaration of Performance for more details.

## QUANTITY ESTIMATOR

JOINT SIZE (MM)	METRES/LITRE
6 x 6	27.8
9 x 6	18.5
12 x 9	9.3
18 x 10	5.6
25 x 10	4.0

**IMPORTANT:** The information in this leaflet is given in good faith and based on results gained from experience and tests. However, all recommendations or suggestions are made without guarantee since the conditions of use are beyond our control. Goods are supplied subject to the Company's terms and conditions of sales, a copy of which is available on request.

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