

#### **Description:**

The Moulded No.46 O.G cast aluminium gutters come in various sizes (100mm x 75mm, 125 x 100mm & 150 x 100mm) & are supplied with a complete range of accessories ie angles, outlets, stopends, fascia brackets. True & Facetted radius gutters are also available.

#### **Installation:**

Moulded No.46 O.G gutters have fascia brackets which are set out at 915mm maximum centres no further than 300mm from a joint, please also allow 1 extra bracket per fitting. The fascia brackets should be set out to any pre-determined fall taking note of the position of any fittings such as outlets & angles beforehand, brackets should be fixed using 5mm x 25mm stainless steel countersunk screws (dependant on substrate). See Fig 1.

Rafter brackets are also available whose centres may be governed by the roof timbers. Rise & fall brackets driven into the masonry are recommended to be at 915mm maximum centres.

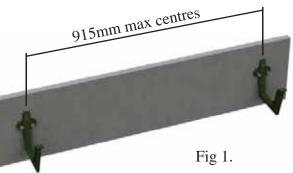
#### **Direct Fixing:**

It is possible to directly fascia fix Moulded No.46 gutters using 5mm x 25mm stainless steel screws (dependant on substrate) without additional support, although care must be taken to keep fixing through the back face above the waterline, as below this it may effect the calculable, leak free, capacity of the gutter.

Where a gutter sits upon a cornice or cill, it is advisable to have a damp-proof membrane behind and below the gutter. Fixing centres for "Legacy" cast are 915mm.









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## "Legacy" Cast Moulded No.46 O.G. Gutter

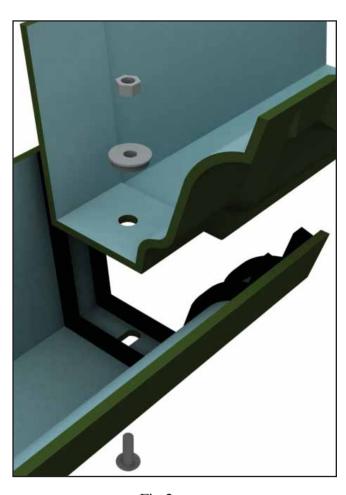


Fig 2.

#### **Jointing:**

Aluminium has a coefficient of expansion equal to 0.00002348mm per °C on average, this equates to just over 1.4mm per metre on a temperature range of -20°C to +40°C. Typically a 3mm to 4mm expansion gap between the ends of the gutter sections is advisable.

ARP recommend & supply Arbosil 1096 Low Modulus Silicone sealant & it is essential that this or a direct equivalent is used to seal the joints as this will ensure a strong mechanical bond that withstands the forces associated with thermal movement.

It is important to observe the sealant manufacturers guidelines concerning application & curing during cold or damp weather conditions & that before assembling the joint all surfaces are clean & free from grease, acetone applied with a soft cloth & wiped dry is recommended.

Cast Moulded No.46 O.G. gutters have a Spigot arrangement that are secured using M6 x 30mm aluminium bolts, neoprene washers & nuts.

Having sited the gutter, apply 2 x 6mm beads of Arbosil 1096 Low Modulus Silicone sealant to the gutter socket. (Fig 2.).The two surfaces can then be brought together, the bolt inserted applying sealant to the thread & round the slot in the union, tighten the joint until some sealant emerges and a

feeling of resistance is achieved leaving a 3mm sandwich of sealant. Excess sealant should then be removed. Touch up paint is supplied to touch up all site cut edges.

#### **Composition & Manufacture:**

'Legacy' Moulded No.46 O.G. Gutters are manufactured from Aluminium alloy LM27 to BS1474: 1972 & the product complies to, or exceeds all relevant standards. Special fittings for the gutters using fabrication methods involving cut, mitre & welding techniques can be provided.

Note:100x75mm & 125x100mm ranges are left hand systems; 150x100mm range is a right hand system.

#### **Finish:**

Mill Finish Aluminium or Polyester Powder Coated to a range of BS or RAL Colours.



True Radius Pattern

#### **Model Specification:**

ARP heavy grade 'Legacy' Gutters & fittings to BS 2997 (EN612) using LM27 alloy aluminium in accordance with BS 1474: 1974. Profile to be Cast Moulded No.46, size 100mm x 75mm (3.5mm). 125mm x 100mm (3.5mm) & 150 x 100mm (3.5mm). Materials to have factory applied Polyester Powder Coat to all significant surfaces in accordance with BS EN 122026 Matt/Satin/Gloss\* finish, or alternatively plain aluminium Mill Finish. All to be supplied by Aluminium Roofline Products Ltd, Unit 2, Vitruvius Way, Meridian Business Park, Braunstone, Leicester LE19 1WA. Tel 0116 2894400 Fax 0116 2894433. Joints to be loose union connector sealed by application of Arbosil 1096 Low Modulus Silicone Sealant & fastened by M6 x 30mm bolts, neoprene washers & nuts in accordance with the manufacturer's specification & guidelines. Gutter to be fixed by fascia brackets at 915mm centres with supplementary brackets at or near fittings. Fixing for brackets to be 5mm x 25mm countersunk/ domed head stainless steel screws (dependant on substrate)

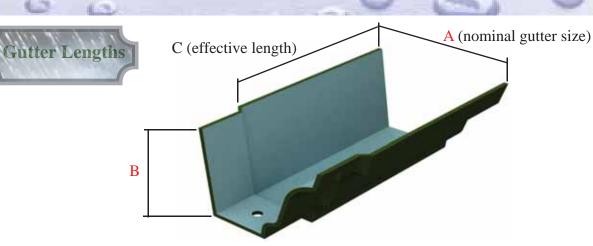
\* Delete as appropriate





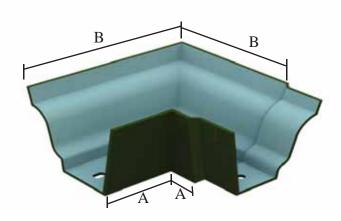
# O u d e d O 6

## "Legacy" Cast Moulded No.46 O.G. Gutter



A	В	Code
(mm)	(mm)	C=1.8m
100	75	43CMOG1.8
125	100	54CMOG1.8
150	100	64CMOG1.8

**Gutter Angles** 



(	Gutter Size	Code	A	В	Code	A	В
	(mm)	90° External	(mm)	(mm)	135° External	(mm)	(mm)
	100 x 75	43CMOAX90	76/27	183/131	43CMOAX135	76/27	119/65
	125 x 100	54CMOAX90	76/27	208/162	54CMOAX135	76/27	137/81
	150 x 100	64CMOAX90	76/27	240/192	64CMOAX135	76/27	142/96

Gutter Size	Code	A	В	Code	A	В
(mm)	90° Internal	(mm)	(mm)	135° Internal	(mm)	(mm)
100 x 75	43CMOAI90	183/131	76/27	43CMOAI135	119/65	76/27
125 x 100	54CMOAI90	208/162	76/27	54CMOAI135	137/81	76/27
150 x 100	64CMOAI90	240/192	76/27	64CMOAI135	142/96	76/27

NB: 100 x 75 & 125 x 100mm ranges are left hand systems; 150 x 100mm range is a right hand system.



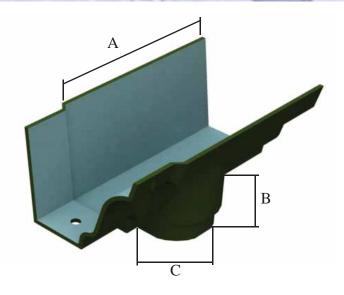
Unit 2,Vitruvius Way Meridian Business Park Braunstone Leicester LE19 1WA

Tel:0116 2894400

Fax:0116 2894433

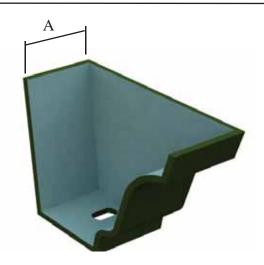
E-mail:sales@arp-ltd.com

### **Gutter Outlets**



Gutter Size	A	В	Code	Code	Code	Code	Code	Code
(mm)	(mm)	(mm)	C=63mm Ø	C=76mm Ø	C=101mm Ø	C=76mm Sq	C=101x76 mm	C=101mm Sq
100 x 75	197	49	43CMOO2R	43CMOO3R	-	43CMOO3S	43CMOO43	-
125 x 100	197	57	54CMOO2R	54CMOO3R	-	-	54CMOO43	-
150 x 100	197	57	64CMOO2R	64CMOO2R	64CMOO3R	64CMOO3S	64CMOO43	64CMOO4S

**Gutter Stopends** 



Gutter Size	A	Code	Code
(mm)	(mm)	(External)	(Internal)
100 x 75	45	43CMOSEX	43CMOSEI
125 x 100	45	54CMOSEX	54CMOSEI
150 x 100	45	64CMOSEX	64CMOSEI



Unit 2,Vitruvius Way Meridian Business Park Braunstone Leicester LE19 1WA

Tel:0116 2894400

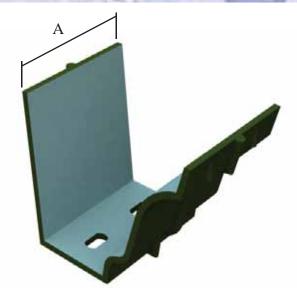
Fax:0116 2894433

E-mail:sales@arp-ltd.com

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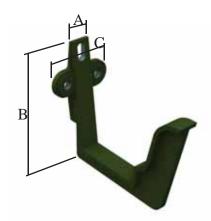
## "Legacy" Cast Moulded No.46 O.G. Gutter

### **Union Connectors**



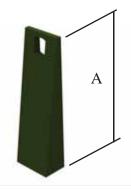
Gutter Size	A	Code
(mm)	(mm)	
100 x 75	94	43CMOUC
125 x 100	94	54CMOUC
150 x 100	94	64CMOUC

### Fascia Brackets



Gutter Size	A	В	С	Code
(mm)	(mm)	(mm)	(mm)	
100 x 75	16	99	60	43CMOBF
125 x 100	21	120	64	54CMOBF
150 x 100	21	120	64	64CMOBF

### Direct Fix Wedge



Gutter Size	A	Code
(mm)	(mm)	
100 x 75	65	4CMOGWEDGE
125 x 100	90	CMOGWEDGE
150 x 100	90	CMOGWEDGE



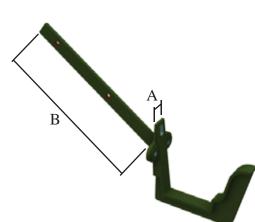
Unit 2,Vitruvius Way Meridian Business Park Braunstone Leicester LE19 1WA

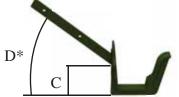
Tel:0116 2894400

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E-mail:sales@arp-ltd.com

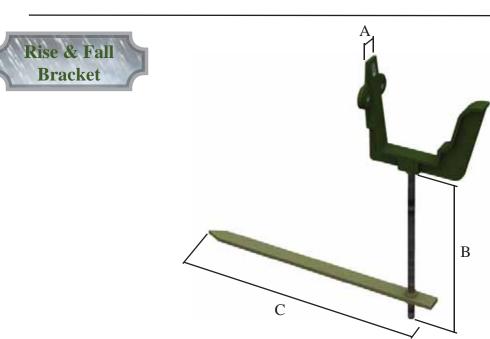
Rafter Bracket





\* D, roof pitch in degrees, measured from the horizontal.

Gutter Size	A	В	С	D	Code	Code
(mm)	(mm)	(mm)	(mm)	0	Side Fix	Top Fix
100 x 75	16	230	45	Specify	43CMOBRS	43CMOBF
125 x 100	21	230	45	Specify	54CMOBRS	54CMOBF
150 x 100	21	230	45	Specify	64CMOBRS	64CMOBF



Gutter Size	A	В	С	Code
(mm)	(mm)	(mm)	(mm)	
100 x 75	16	200	330	43CMOBRFS
125 x 100	21	200	330	54CMOBRFS
150 x 100	21	200	330	64CMOBRFS



Unit 2,Vitruvius Way Meridian Business Park Braunstone Leicester LE19 IWA

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### Handling & Storage

#### **Handling & Storage:**

Gutters/downpipes & fittings, particularly with polyester powder coat finish should be handled with care & should preferably be stored under cover on racks to prevent scratching.

All lengths are supplied in protective polythene wrapping, components suitablely packed in boxes.

If painted products are to be stored outside, cover with tarpaulin to guard against water ingress into the protective polythene.

Mill finish items should be stored under cover to avoid uneven oxidization prior to being fitted.

#### **Safety:**

The relevant safety regulations are outlined in the Health & Safety at Work Act 1974 & should be followed.

Refer to CDM regulations (Code of Practice and Design for Health and Safety in Construcion 1995)

Handling mill finish or painted aluminium products does not pose any known health hazard, however it is recommended to wear protective gloves whilst handling.

When cutting or welding these products it is advisable to wear eye protection. Avoid ingestion or inhalation of any dust or fumes arising from such operations & use a face mask when necessary.

Precaution needs to be taken to avoid contact with live power lines or cables.

These products generally do not aid combustion & are rated as below.

Mill Finish, non combustible to BS 476 part 4.

Powder coated, 0.1 Fire propagation index BS476 part 6, Class 1 Flame Surface Spread BS 476 part 7.

#### **Maintenance:**

#### **Post Installation**

Gutters & downpipies should be thoroughly checked & water tested for leaks, sealant smudges & any damage that may impair the performance or appearance of the system with the necessary remedial action being taken before the system is handed over.

#### **Inspection**

The gutter should be regularly inspected in terms of fixings, joints, surface damage & build up of leaves or silt. The proximity of trees or climbing vegetation in the immediate vicinity should be noted. Lightning links, if installed should be checked for conductivity.

#### **Cleaning:**

Remove any debris in the gutter to ensure the gutter performs to it's original design capacity.

Brushing down a mill finish gutter will be adequate, as an aluminium oxide layer forms over time. This acts as a natural barrier against further corrosion & thus protects the metal.

Polyester powder coated gutters & downpipes should be washed down regularly using non abrasive materials & a warm detergent solution, in marine or other aggressive environments this should be carried out at three monthly intervals. Any breaks in the surface finish should be rubbed down, primed & touched up with a suitable liquid paint.

Guarantees (if required) issued by polyester powder manufacturers or applicators are reliant upon their terms & conditions being met which include maintenance, copies available upon request. Touch up paint is supplied to touch up all site cut edges.



### Material Safety Data Sheet Aluminium Extrusions & Sheet Products

#### **Product**

Extruded Aluminium sections and/or Aluminium sheet formed to requirements.

#### Composition

The products consist of aluminium which may (or not) be subsequently coated with polyester powder paints or alternative finishes.

#### **Health Statement**

When subject to the normal purposes for which they are designed, these products do not present health risks or hazards.

By their nature these products may have sharp edges and corners and the use of gloves when handling is recommended. When installing overhead it is advisable to wear head protection.

When cutting or welding these products it is advisable to wear eye protection. Avoid ingestion or inhalation of nay dust or fumes arising from such operations and use a suitable face mask when necessary.

Metal is a good conductor of electricity and precautions should be taken to ensure contact with live power lines/cables is avoided.

#### Precautions for Handling & Storage

No special precautions are necessary for normal handling and storage.

#### Procedures in the event of an emergency

There are no special risks associated and the products do not constitute a fire hazard. The products are not generally ignitable.

#### Waste Disposal

Waste products are not hazardous and their disposal should be in accordance with local authority regulations.







#### Technical Datasheet Arbosil 1096

Arbosil 1096 is a One-part Low Modulus Neutral Cure Silicone Sealant, which cures on exposure to moisture vapour to form an elastic silicone rubber.

#### **Main Application**

Recommended for use in many forms of construction including glass wall assemblies, perimeter seals on curtain walling, perimeter sealing of polyester powder coated frames and glazing of windows in swimming pool buildings. It is not recommended for overpainting and use against natural stone.

#### **Specification Compliances**

BS EN ISO 11600 F/G 25LM

BS 5889 Type A: 1989

BS 6920 Part 1: 1990 (Translucent only)

German DIN 18545 Class 2 Type E (Translucent only)

German DIN 18540 Class 2 (All colours except Translucent)

US Federal TT-S-00 1543A Class A

#### **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.

#### Application

Arbosil 1096 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.

#### Joint Size suitability

Joint width

Minimum 6mm

Maximum 25mm (single application); 50mm (Multiple application)

#### 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.

#### **Health & Safety**

Under the Chemical (Hazards Information and Packaging for Supply) Regulations 1994, Arbosil 1096 is labelled 'irritant'. If sealant comes into contact the eyes, flush with copious volumes of cold water and obtain medical attention. For further information consult Product Safety Data Sheet P41A/B.



### Health & Safety



#### Technical Datasheet Arbosil 1096

#### **Technical Data**

Values **Properties** Typical Shore A hardness.....  $+5^{\circ}$ C to  $+50^{\circ}$ C Application temperature..... Service temperature..... -50°C to +150°C Skinning time @ 20°C/65%RH..... 5 minutes 2mm/24 hours Cure rate @ 20°C/65%RH ..... Resistant to most dilute acids and alkalis; organic solvents may cause the sealant to swell and lose Chemical resistance..... 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): 50% (Not to exceed  $\pm 30\%$  in any one direction) Lap joints (movement in shear): 100% (Not to exceed  $\pm 70\%$  in any one direction)

#### Accessories:

#### Primers

Arbo Primer 2650
Arbo Primer 2402
Arbo Primer 2402
Arbo Primer 2172

500ml tin (yield approximately 125 metres per tin)
500ml tin (yield approximately 200 metres per tin)
500ml tin (yield approximately 200 metres per tin)

#### Cleaners

Arbo Cleaner No.13 1Litre tin

Colours.....

(Toluene based – not suitable for use with plastics or delicate finishes)

Arbo Cleaner No.16 1 Litre tin

(Alcohol based)

#### **Equipment**

Polyethylene nozzles Arbo Caulking Guns

#### **Quantity Estimator**

 Joint size
 Metres per 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

Packaging: 25 x 380ml plastic cartridges. Polyethylene nozzles are included in each box.



Tel:0116 2894400

White, Black, Grey, Mahogany, Translucent, Anthracite.

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#### ARBOSIL 1096

BIOACCUMULATION

This product is not expected to significantly bioaccumulate.

DEGRADABILITY

Not degradable.

ACUTE FISH TOXICITY

Toxicity to fish is improbable.

#### 13 DISPOSAL CONSIDERATIONS

**DISPOSAL METHODS** 

Dispose of waste and residues in accordance with local authority requirements.

#### 14 TRANSPORT INFORMATION

GENERAL The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA,

ADR/RID).

#### 15 REGULATORY INFORMATION

LABELLING



Irritant

CONTAINS METHYL-0,0',0"-BUTAN-2-ONE-TRIOXIMOSILANE

RISK PHRASES

R43 May cause sensitisation by skin contact.

SAFETY PHRASES

S24 Avoid contact with skin. S37 Wear suitable gloves.

This material and its container must be disposed of as hazardous waste.

STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health.

**GUIDANCE NOTES** 

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

#### **16 OTHER INFORMATION**

REVISION COMMENTS

General review

REVISION DATE 120/9/05 REV. NO./REPL. SDS GENERATED 26/02/04 SDS NO. 10171

RISK PHRASES IN FULL

R36/38 Irritating to eyes and skin.

R43 May cause sensitisation by skin contact.