

# MASTERFLOW<sup>®</sup> 102 CS

## A Styrenated Polyester Resin Coaxial Cartridge System.

### Description of Product

A styrenated polyester resin coaxial cartridge system with a resin to hardener ratio of 10 parts to 1. The cartridge is sealed with a push fit red plug and screw cap and it is supplied complete with an adaptor which allows the cartridge to be used in a standard silicone sealant applicator gun.

### Fields of Application

- Anchor sockets
- Fixing externally threaded rods
- Concrete reinforcing bars
- Securing profile sections and bars

Masterflow 102 CS may be used in the following materials:

#### Without the use of perforated sleeves:

- |  |                   |
|--|-------------------|
| <ul style="list-style-type: none"><li>▪ Concrete</li><li>▪ Hard natural stone</li><li>▪ Solid rock</li><li>▪ Solid masonry</li></ul> | } Solid materials |
|--|-------------------|

#### With the use of perforated sleeves:

- |  |                    |
|--|--------------------|
| <ul style="list-style-type: none"><li>▪ Hollow bricks</li><li>▪ Hollow blocks</li><li>▪ Voided stone or rock</li></ul> | } Hollow materials |
|--|--------------------|

### Features and Benefits

- Versatile
- Anchoring without expansion pressure
- Fixing close to free edges
- Medium / High load capacities
- Cost effective
- Uses a standard mastic gun

### Application Procedure

#### Into Solid Materials:

- 1) Drill the hole to the correct diameter and depth using a rotary percussive machine.
- 2) Clean the hole using a stiff wire or nylon brush and clean compressed air or blow pump.
- 3) Once the hole is prepared remove the screw cap and red plug from the cartridge.
- 4) Insert the cartridge and adaptor in to the gun and lightly pull trigger to engage
- 5) Attach mixer nozzle and dispense the first part of the cartridge until an even colour is achieved
- 6) Insert the mixer nozzle to the far end of the hole and half fill hole (depending upon application). Withdraw nozzle as you fill the hole. For deep holes extension tubing can be used.
- 7) Immediately insert the fixing.
- 8) This should be done slowly with a slight twisting motion. Excess resin should be removed from the mouth of the hole before it sets.
- 9) Leave the fixing undisturbed until loading time has elapsed, then attach the fixture and tighten the nut.

#### Into Hollow Materials:

- 1) Drill the hole to the correct diameter and depth. This can be done with either a rotary percussive or rotary machine depending upon the substrate.
- 2) Insert the correct perforated sleeve
- 3) Once the hole is prepared remove the screw cap and red plug.
- 4) Insert the cartridge and adaptor in to the gun and lightly pull trigger to engage.
- 5) Attach mixer nozzle and dispense the first part of the cartridge until an even colour is achieved.
- 6) Insert the mixer nozzle to the far end of the hole and half fill hole (depending upon application) Withdraw nozzle as you fill the hole. For deep holes extension tubing can be used.

- 7) Immediately insert the fixing.
- 8) This should be done slowly with a slight twisting motion. Excess resin should be removed from the mouth of the hole before it sets.
- 9) Leave the fixing undisturbed until loading time has elapsed, then attach the fixture and tighten the nut.

**Coverage**

As per guideline chart.

**Packaging**

Masterflow 102 CS is supplied in cartridges of 150ml & 380ml.

**Storage**

**Technical Data/Typical Properties**

**Gel and Loading Times:**

Application Temperature (°C)	T gel range (minutes)	T gel typical (minutes)	T load (minutes)
30	3 - 7	5	30
25	5 - 10	7	45
20	7 - 15	10	60
10	15 - 30	20	120
5	20 - 45	30	180

Cartridges should be stored in their original packaging in cool conditions (0°C - 20°C) out of direct sunlight.

**Shelf Life**

When stored to manufacturer's instructions the shelf life will be 12 months.

**Watchpoints**

The Masterflow 102 Cartridge System contains styrene which is currently classified as a hazardous material, and it is flammable with a flash point of 32°C.

Wear suitable protective clothing eye / face protection and gloves and ensure adequate ventilation.

**Load capacity for all thread studs:**

Stud diameter d (mm)	Hole diameter d <sub>o</sub> (mm)	Hole depth h <sub>o</sub> (mm)	Required close edge distance to achieve N <sub>rec</sub> c <sub>cr</sub> (mm)	Required anchor spacing to achieve N <sub>rec</sub> s <sub>cr</sub> (mm)	Min concrete member thickness h <sub>min</sub> (mm)	Characteristic failure load in min 30N/mm <sup>2</sup> concrete N <sub>AK</sub> (kN)	Recommended load in min 30N/mm <sup>2</sup> concrete N <sub>rec</sub> (kN)
8	10	80	120	80	110	12.5	4.2
10	12	90	135	90	120	23.1	7.7
12	14	110	165	110	140	23.9	8
16	18	125	190	125	165	36.9	12.3
20	24	170	255	170	220	53.5	17.8
24	26	210	315	210	270	66	22



The Chemical Company

**Load capacity data for reinforcing bar anchors:**

Bar diameter (mm)	6	8	10	12	16	20	25	32
Hole diameter (mm)	8	10	12	14 - 16	20	25	32	38

Minimum Hole depth = 100mm

Characteristic maximum tensile load  $N_{RK} = \frac{(\text{Hole depth} - 50)}{2.5} \text{ kN}$  - up to ultimate strength of bar.

N.B.: This includes no allowances for safety factors, edge effects or anchor spacing.

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**Health and Safety**

\*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

**Solvent Based Products**

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

**Powder Products**

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during use.

**Resin Products**

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

**Spillage**

Chemical products can cause damage; clean spillage immediately.

**Disclaimer:**

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

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