

## William Ivor Stone Limited - Composite Technology Consultants

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# M1

## Introduction

Master Works™ M1 is a water based resinous material for use in the composites, construction and reproduction industries. It is a two component, acrylic polymer/mineral system that can be hand and spray laminated, cast and injected.

Primary uses include decorative architectural components, building systems, reproduction castings, foam coatings, tooling and prototyping. Master Works™ M1 can replace conventional resins, GRC and other cementitious products due to the significant advantages offered by the system.

## Features / Benefits

- Easy to use with simple mix ratios
- Water based with water clean up
- Low toxicity
- Non combustible
- Low odour
- Dimensionally stable,
- Low exotherm on set (30°C)
- No limit to casting mass
- Good adhesion to a variety of substrates
- Non-hazardous waste
- Versatile - can be filled and pigmented
- Can be continuously processed

## Processing

The material is supplied as two liquid components A and B that must be mixed together in a simple volume ratio of 2 parts Component A and 1 part Component B.

The set time and rheology of Master Works™ M1 can be controlled with the use of Master Works™ Control Additives.

Master Works™ M1 can be mass pigmented using the Master Works™ M series water based pigment dispersions.

It is recommended that laminates are constructed using the Master Works™ Multi Axial Reinforcement fabric.

## Application Areas

- Decorative building panels/modular systems
- Cast objects
- Tooling for advanced composites
- RTV2 silicone rubber mould supports
- Architectural complements
- Internal ship building components

Master Works™ M1 has good water resistance. If used externally a sealer coat is recommended. Master Works™ Sealer is available for improved water resistance properties, other recommendations available on request.

Master Works™ M1 has been formulated to be non-combustible and will meet most local standards, but local building regulations should be checked before use.

## Technical Information

Density (wet)	1.87 kg/lt - 116 lb per ft <sup>3</sup>
Density (dry)	1.75 kg/lt - 109 lb per ft <sup>3</sup>
Pot life (no retarder)	circa 15 minutes
Pot life (with retarder)	up to 1 hour
Compressive strength	circa 30 MPA 4,350 lb per inch <sup>2</sup>
Ultimate hardness	80+ shore D
Final expansion	0.15%
CT	23x10 <sup>-6</sup> (1/oc)



### DISCLAIMER OF LIABILITY

The information above is given in good faith as a guide for material use. However it remains at all times the responsibility of the customer to ensure that the material is fit for the particular purpose intended. The Master Works Trade Mark is the property of the Rohm and Haas Corporation.

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