

Puma Polymers

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MASTERWORKS™ Laminating with Master Works M1



1 Product Preparation

Master Works™ M1 is a two component casting and laminating system. Weigh/measure both components separately in the ratio indicated on the product containers.

If pigment is required, this should be added to the A Component. (See Master Works™ Pigment Data Sheet for addition ratios).

If the product is to be filled, fillers should be added to both Components A and B. (See Filler Guidelines for more information).

If the product set time needs to be adjusted, Master Works™ Retarder and Accelerator are available. The retarder must be added to the A component while accelerator must be added to the B component. (See Master Works™ Control Additive Data Sheet for retarder and accelerator use guidelines).



2 Mixing

Pour both components together into a separate container large enough to take the quantity of Components A and B.

Using a Master Works™ high shear mixing blade in a power drill, keeping the blade immersed in order to avoid entrapping air, mix until thoroughly incorporated.



3 Gelcoats

The use of gelcoats is essential when laminating. The gelcoat is simply a thickened version of the base material and is used to prevent any fibre reinforcement being visible as well as providing a decorative finish.

To make the gelcoat, prepare and mix the Master Works™ M1 materials as above and then add a few drops of Master Works™ Thixotrope if required. Only add the thixotrope after all the other components, such as pigments or fillers have been mixed together.

The mould to be used should be thoroughly clean and free from dust and other contaminants.

If a rigid or polyurethane mould is being used a suitable release agent should be applied. If a silicone mould is used no release agent is required.

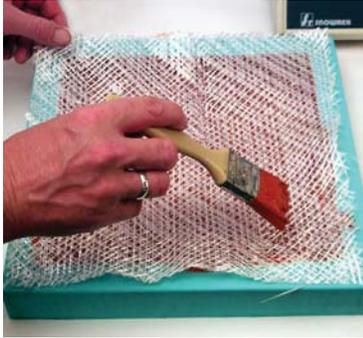
The gelcoat should be brushed onto the prepared mould surface at a thickness of no less than 2mm, and left to harden.

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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4 Reinforcement

While the gelcoat is hardening prepare the Master Works™ Multi Axial Reinforcement Fabric cutting it to the correct size.

Mix an appropriate quantity of Master Works™ M1 to complete the lamination. Wet the back of the hardened gelcoat, then place the reinforcement fabric and wet through with Master Works™ M1 using a paint brush.

Take care to brush the material into any corners or cavities to eliminate entrapped air.

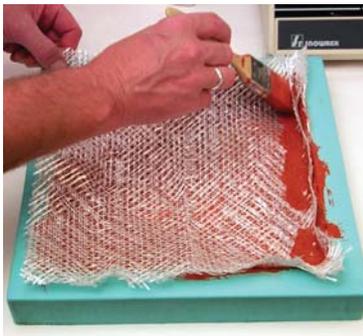


5 Laminate Spacing

To provide maximum stiffness to the laminate, a spacing layer can be incorporated.

This should be Master Works™ M1 material to which has been added 5% by weight of 6mm chopped 'E' glass fibre. This mixture should be uniformly brushed onto the back of the first layer of reinforcement.

The thickness of this spacing layer should be between 4-6mm depending on the size of the panel.



6 Backing Reinforcement Layer

The second layer of Master Works™ Multi Axial Reinforcement can be applied directly onto the spacer layer.

This reinforcement can be consolidated with a stiff brush and an additional quantity of mixed Master Works™ M1.

7 Cleaning Procedure

All Master Works™ products are water-soluble and tools such as brushes, rollers and mixing blades should be washed with water immediately after use.

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8 Trimming

Excess material should be trimmed from the laminate, using a sharp knife, before demoulding



9 Demoulding

Products should be demoulded at the earliest possible stage following cure.

As the Master Works™ products are water based, there is a residual quantity of water that needs to evaporate from the product before the final properties are achieved.



10 Curing and Strength Development

Drying takes place in a relatively short time. To avoid any deformation while the product dries it should be stacked in a well ventilated area with no stress points. Laminated products will take between 24-48 hours to develop 70% of their final strength in storage conditions between 20-250C.

Ensure the product is fully cured before packaging to avoid any condensation on the packaging material.

If the product is to be painted or patinated, it should be fully cured. This is especially important if non-vapour permeable coatings are being used.

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