

## MASTERWORKS™ Ortho

### Introduction

Master Works™ Ortho is a two liquid component casting system that is non hazardous, non toxic and non combustible. Master Works™ Ortho is a relatively soft material that can be easily shaped by hand or mill post cure and is dimensionally stable.

| Technical Properties                    | Standard                | Metric         |
|---|-------------------------|----------------|
| Mix by volume 2 parts A to 1 part B     | 2:1                     | 2:1            |
| Mix by weight 100 parts A to 30 parts B | 100:45                  | 100:45         |
| *Initial set (knife-set point)          | 6-8 mins                | 6-8 mins       |
| Final set (Vicat)                       | 18-22 mins              | 18-22 mins     |
| Expansion                               | 0                       | 0              |
| Density wet                             | 69.9 lb/ft <sup>3</sup> | 1.12 kg/liter  |
| Density dry                             | 61.1 lb/ft <sup>3</sup> | 0.908 kg/liter |
| Total water loss                        | 12%                     | 12%            |
| Shore D hardness                        | 50                      | 50             |



\*Set time and viscosity can be controlled by the addition of Master Works™ control additives.

### General Directions for Use

#### Preparing Materials

Materials should be thoroughly mixed before accurately batching. Mixing can be achieved by the use of Cowles type high shear mixers. Take care not to cross contaminate materials.

#### Mixing Materials

Master Works™ Ortho Component A is mixed with Component B at the ratio of 2:1 by volume or 100:45 by weight. These materials can be processed efficiently by hand-held drill with Cowles type high shear mixers.

#### Casting

Pour the mixed material from a height of about 12 inches (300 mm), into one end of the foot impression and allow material to flow forward to ensure accurate contact.

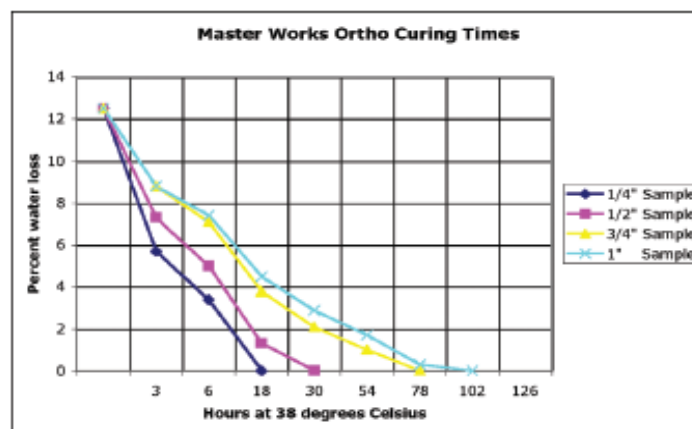
#### Curing

From the graph opposite it is clear that the bulk of the water loss occurs at the beginning of the curing cycle. If the part is to be milled or shaped, this can commence immediately after the product has set.

The graph is a general study of water loss over time in a lab convection oven at 100°F (38°C) at four different, nominal, thicknesses.

#### Storage

Materials should be thoroughly mixed before accurately batching. Mixing can be achieved by the use of Cowles type high shear mixers. Take care not to cross contaminate materials.



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V2-052909

**PUMA Polymers**

PO Box 5413, 2003 Curtain Pole Road, Chattanooga, TN 37406  
Toll Free: 877-744-0499 Telephone: 423-697-0499 Fax: 423-697-0437  
[www.pumapolymers.com](http://www.pumapolymers.com)