

MAXAVEST

HIGH-EXPANSION MICRO-FINE PHOSPHATE-BONDED UNIVERSAL INVESTMENT
FOR ALL ALLOYS & PRESSABLE CERAMICS

PHYSICAL PROPERTIES

Liquid/Powder Ratio:	25ml/100g
Working Time:	5-7 min.
Setting Time:	8-12 min.
Setting Expansion:	
100% Clear Expansion Liquid	2.5-4.0%
Thermal Expansion:	
@ 700°C (1292°F)	1.0-1.2%

NOTE: DATA OBTAINED AT A LIQUID AND POWDER TEMPERATURE OF 22°C (72°F).

PREPARATION

- For even smoother surfaces spray, paint, or dip patterns with Emdin Maxifilm™, Debubbler Blue™ or similar surfactant and allow to dry.
- Ensure measuring and mixing equipment are clean and calibrated for use.
NOTE: NEVER MIX PHOSPHATES AND GYPSUMS.
- Use chart below to determine proper liquid/water ratio.
NOTE: USE LIQUID & POWDER AT ROOM TEMPERATURE 21-24°C (70-75°F).

MIXING DIRECTIONS

- Ensure both liquid and powder temperatures are 21-24°C (70-75°F).
- Add liquid/water mixture to empty mixing bowl.
- Add powder to mixing bowl.
- Hand spatulate for roughly 20 seconds to incorporate powder into liquid.
- Mix under vacuum at roughly 400 rpm for 30 to 60 seconds.
- Hold under vacuum for another 30 seconds.
- Pour mixture into metal or plastic ring(s).

BENCHSET

RINGLESS TECHNIQUE

Remove mold from ring and base after 20-30 minutes.
Trim glaze off top of mold.

METAL RING TECHNIQUE

Remove former base from ring after 20-30 minutes.
Trim glaze off top of mold.

LIQUID DILUTION CHART

Recommended dilutions are approximate. Technicians should adjust dilution to optimize fit accordingly.

	NON-PRECIOUS ALLOYS		NOBLE ALLOYS		GOLD CROWNS		PRESSABLE CERAMICS	
	LIQUID (ML)	WATER (ML)	LIQUID (ML)	WATER (ML)	LIQUID (ML)	WATER (ML)	LIQUID (ML)	WATER (ML)
60G	12.0	3.0	9.5	5.5	7.5	7.5	11.0	4.0
90G	18.0	4.5	14.5	8.0	11.5	11.0	16.0	6.5
100G	20.0	5.0	16.0	9.0	12.5	12.5	18.0	7.0
160G	32.0	8.0	25.5	14.5	20.0	20.0	29.0	11.0

NOTE: FOR EVEN GREATER EXPANSION, USE GREEN HIGH EXPANSION LIQUID IN ACCORDANCE WITH THE CHART ABOVE.

NOTE: BOTH LIQUIDS CAN BE USED TOGETHER. GREATER PROPORTION OF GREEN HIGH EXPANSION LIQUID GIVES HIGHER EXPANSION.

EXPANSION ADJUSTMENT

INCREASE EXPANSION

- Use more liquid and less water.
NOTE: MAINTAIN TOTAL AMOUNT OF MIXING LIQUID.
- Shorten mixing time in increments of 15 sec.

DECREASE EXPANSION

- Use more water and less liquid.
NOTE: MAINTAIN TOTAL AMOUNT OF MIXING LIQUID.
- Lengthen mixing time in increments of 15 sec.

NOTE: CLEAR EXPANSION LIQUID AND GREEN HIGH EXPANSION LIQUID MAY FREEZE DURING SHIPMENT IN COLD WEATHER OR FROM IMPROPER STORAGE IF LIQUID SHOULD FREEZE IT WILL NO LONGER BE USABLE.

RAPID BURNOUT

LESS THAN 80% CLEAR EXPANSION LIQUID

- Preheat furnace to a maximum of 816°C (1500°F).
- Place mold(s) in furnace after bench set.
- Heat soak mold(s) for roughly 45-60 minutes.
NOTE: ADD 5 ADDITIONAL MINUTES HEAT SOAK FOR EACH ADDITIONAL MOLD.
- For higher temperatures, heat to final temp. at 8-11°C/min (15-20°F/min).
- Heat soak mold(s) for roughly 30-40 minutes.
NOTE: ADD 5 ADDITIONAL MINUTES HEAT SOAK FOR EACH ADDITIONAL MOLD.
- Cast immediately after removing mold from furnace.

MORE THAN 80% CLEAR EXPANSION LIQUID

- Preheat furnace to 538°C (1000°F).
- Place mold(s) in furnace after bench set.
- Heat soak mold(s) for roughly 15-20 minutes.
NOTE: ADD 5 ADDITIONAL MINUTES HEAT SOAK FOR EACH ADDITIONAL MOLD.
- Heat to final temperature at up to 8-11°C/min (15-20°F/min).
- Heat soak mold(s) for roughly 30-40 minutes.
NOTE: ADD 5 ADDITIONAL MINUTES HEAT SOAK FOR EACH ADDITIONAL MOLD.
- Cast immediately after removing mold from furnace.

SLOW BURNOUT

- Place mold(s) in furnace at room temperature.
- Heat to 538°C (1000°F) at up to 4-5°C (7-10°F) per minute.
- Heat soak mold(s) for roughly 30-40 minutes.
NOTE: ADD 5 ADDITIONAL MINUTES HEAT SOAK FOR EACH ADDITIONAL MOLD.
- Heat to final temperature at up to 8-11°C (15-20°F) per minute.
- Heat soak mold(s) for roughly 30-40 minutes.
NOTE: ADD 5 ADDITIONAL MINUTES HEAT SOAK FOR EACH ADDITIONAL MOLD.
- Cast immediately after removing mold from furnace.

CAUTION!

This product contains finely divided crystalline silica dust. Long-term inhalation can lead to silicosis, bronchitis, or (much more rarely) cancer. To ensure long-lasting health, use of proper Personal Protective Equipment (PPE) is required.

WORKING TIME ADJUSTMENT

INCREASE WORKING TIME

- Decrease temperature of powder or liquid/water mixture in increments of 2°F.

DECREASE WORKING TIME

- Increase temperature of powder or liquid/water mixture in increments of 2°F.

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