

**CX-71****VERSATILE-EXPANSION FINE-GRAIN PHOSPHATE-BONDED  
UNIVERSAL INVESTMENT FOR ALL ALLOYS**

## PHYSICAL PROPERTIES

<b>Liquid/Powder Ratio:</b>	24ml/100g
<b>Working Time:</b>	7-10 min.
<b>Setting Time:</b>	10-13 min.
<b>Setting Expansion:</b>	
100% Clear Expansion Liquid	3.2-4.7%
<b>Thermal Expansion:</b>	
@ 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)
<b>60G</b>	12.0	2.5	9.5	5.0	7.5	7.0	10.5	4.0
<b>90G</b>	17.5	4.0	14.0	7.5	11.0	10.5	15.5	6.0
<b>100G</b>	19.5	4.5	15.5	8.5	12.0	12.0	17.5	6.5
<b>160G</b>	31.5	7.0	25.0	13.5	19.5	19.0	28.0	10.5

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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