

Mars 6™ Method Note

Microwave Digestion of Boric Acid HF Neutralization

Procedure

Allow vessel to cool. Add 30 mL H₃BO₃ (4%) into the vessel that contains the sample and acid.

Notes

This procedure can be used if it is necessary to complex the residual hydrofluoric acid or redissolve insoluble fluorides formed by reaction of certain analytes with hydrofluoric acid.

Alternatively, 1-4 g of solid H₃BO₃ + 25 mL deionized H₂O can be used in place of the 4% w/v solution.

Recommended Equipment	Recommended Vessels	Reagents	
MARS 6 MARS 6 iWave	EasyPrep EasyPrep Plus	H ₃ BO ₃ (4%)	

Max Sample Weight	Sample Type	Control Type	Method Type
Varies by Sample	Organic	Ramp to Temperature	One Touch

Heating Progra	am					
Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	170	15:00	15:00	800	900-1050	Off

^{*} Ramp times and power may vary depending on the type and number of vessels.

Results

See sample specific method notes.

General Precaution

- a) This procedure is a reference point for sample digestion using a CEM system and may need to be modified or changed to obtain the required results on your sample.
- b) If using a vessel other than the recommended choice, adjust sample size and pressure limit to values appropriate for the vessel chosen.
- c) The control / reference vessel must contain the largest and most reactive sample.
- d) Manual venting of CEM vessels should be performed when wearing hand/eye/body protection and when the vessel contents are at or below room temperature to avoid the potential for chemical burns. Always point the vent hole away from the operator.
- e) If programming as One Touch, the ramp time and power will be automatically determined based on the number and type of vessels detected.