

Mars 6TM Method Note

Microwave Digestion of Aluminum Oxide

Procedure

Weigh 0.25 g of sample into the digestion vessel. Add 6.5 mL H_3PO_4 and 3.5 mL H_2SO_4 . Gently swirl the vessel to thoroughly mix the sample and acid.

Notes

EasyPrep Plus requires a high temperature probe for this method.

Ensure that particles are well suspended in acid mixture prior to sealing vessel.

Stirring may be helpful to keep particles suspended in solution during digestion.

Recommended Equipment	Recommended Vessels	Reagents	
MARS 6	EasyPrep	H ₃ PO ₄	
MARS 6 iWave	EasyPrep Plus	H ₂ SO ₄	

Max Sample Weight	Sample Type	Control Type	Method Type
0.25 g	Organic	Ramp to Temperature	One Touch

Heating Progra	am					
Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	270	30:00	20:00	N/A	1800	N/A

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

Results

Sample was clear, colorless, and particle free upon dilution to 50 mL.

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.