

Microwave Digestion of Kevlar

Procedure

Weigh 0.5 g of the sample into the digestion vessel. Add 10 mL of HNO₃. Gently swirl the mixture and wait approximately 15 minutes to pre-digest before closing the vessel.

Notes

This application can only be run in the iPrep vessel.

Ensure that all fibers are completely covered with acid and not adhered to the vessel liner wall.

Recommended Equipment	Recommended Vessels	Reagents
MARS 6 iWave	iPrep	HNO ₃

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

Heating Program								
Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring		
1	250	30:00	20:00	N/A	700-1800	Off		

^{*} 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) 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.
- d) If programming as One Touch, the ramp time and power will be automatically determined based on the number and type of vessels detected.