MARS 6™
Method Note

Microwave Digestion of Graphite Fiber - Epoxy Resin (Fiber Content)

Procedure

Weigh 1 g of the sample into the digestion vessel. Add 30 mL of HNO_3. Gently swirl the mixture before closing the vessel.

Notes

Sample must be completely covered with acid prior to digestion.

After digestion the samples are filtered and the graphite fibers are rinsed with deionized water.

This method is for the gravimetric (weight) determination of fiber content.

Recommended Equipment	Recommended Vessels	Reagents
MARS 6 MARS 6 iWave	EasyPrep EasyPrep Plus	HNO_3

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

Heating Program

Stage	Temp (°C)	*Ramp (mm:ss)	Hold (mm:ss)	Pressure (psi)	* Power (W)	Stirring
1	150	10:00	10:00	800	900-1050	Off

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

Results

Sample was digested, but the fiber filler material is left undigested for subsequent gravimetric analysis.

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.