



iPrep — High Performance Vessels for MARS 6™

The most advanced digestion vessel ever made.

The iPrep® vessel has higher operating parameters than any other vessel and can digest up to twice as much sample per run. Larger samples ensure homogeneity and increase limits of detection, a plus for any lab.

CEM designed and manufactured the first microwave digestion vessel in 1986. We continue to innovate and provide the largest selection of digestion vessels to meet our customers' most demanding applications.

Our dedication to detail and product testing ensures that our vessels provide the highest performance and safest operating conditions in our industry.

Digest difficult organic samples at higher temperatures to achieve a clear digest

Digest up to twice as much sample per run

Accurately measure the temperature of every sample with iWave™

Patented dual-seal design



We Simplify Science

cem.com/iprep

Preparing difficult samples is no longer a problem.

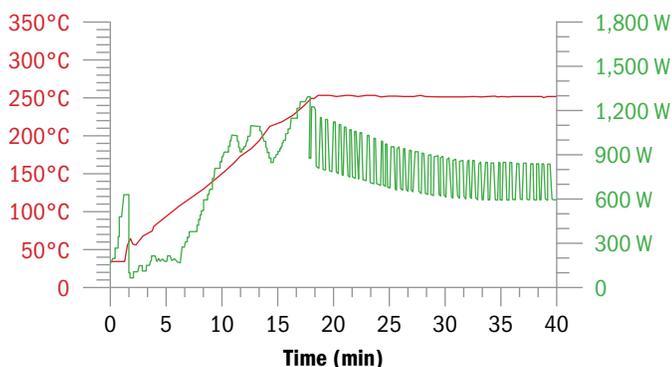
Using only nitric acid, the following materials can be completely digested at the listed maximum sample size. Note that samples containing silicates provide clear and colorless samples, but with silicates at the bottom of the vessel. The addition of HF would completely digest those samples.

Sample Type	Max Size	Result
Waste Fuel Oil	0.5 grams	Clear
Bunker Oil	0.25 grams	Clear
PET Pellet	0.4 grams	Clear
Kevlar	0.5 grams	Clear
Toray Filter	1 filter (0.4 gram)	Clear
API with Aromatic Ring	0.25 grams	Clear
Rh Sponge	0.2 grams	Clear
Toner	0.4 grams	Clear (Some silicates — HF would completely digest)
Coal	0.3 grams	Clear (Some silicates — HF would completely digest)

Dual-Seal Technology

Digest organic samples at higher temperatures.

The patented dual-seal technology of the iPrep vessel allows it to reach higher temperatures than other high performance vessels. Digesting difficult organic samples at higher temperatures solubilizes them faster and more consistently, leading to ease in elemental analysis. The temperature graph below shows an iPrep vessel ramping an organic sample to 250° C and holding that temperature for the remainder of the digestion. This temperature has not been possible before iPrep.



iWave

iPrep works with iWave to heat samples evenly.

Measure and control the temperature of every iPrep vessel with iWave technology. iWave is a contactless in-situ temperature measurement technology that is as accurate as a temperature probe without the probe. The precision of iWave allows iPrep vessels to reach higher temperatures, while the accuracy of the temperature measurement allows the MARS 6 to adjust the power output to maintain temperature consistency of just a few degrees. This tight control ensures that all samples in a batch reach the programmed temperature and yield clear, consistent digests.

