

Disposable Inserts for Microwave Digestion

Virtually Eliminate Vessel Washing



Glass Inserts

Quartz Inserts

Teflon[®] Inserts

You Have Options

MARS 6™ with iWave® vessel sensing technology has brought tremendous advantages to microwave digestion, including the use of disposable vessel inserts. Vessel inserts offer a convenient way to process samples. The choice of insert will depend upon acid type and blank values required, based on the limit of quantification for a particular analysis. For trace metal analysis it is vital to be aware of any materials coming into contact with the sample, which could contaminate the sample. In general, Teflon and quartz are considered analytically clean materials for use in nearly any application. Glass, by composition is higher in impurities, which may make it unsuitable for some applications.

Vessel Type	Glass	Quartz	Teflon
MARSXpress 20 mL			✓
MARSXpress 55 mL			✓
MARSXpress 75 mL	✓	✓	✓
MARSXpress Plus	✓		

Insert Material	Max Temp for 18 vessels	Max Temp for 24 samples
Glass	210 °C	200 °C
Quartz	210 °C	200 °C
Teflon	180 °C	180 °C

Glass and Quartz Inserts

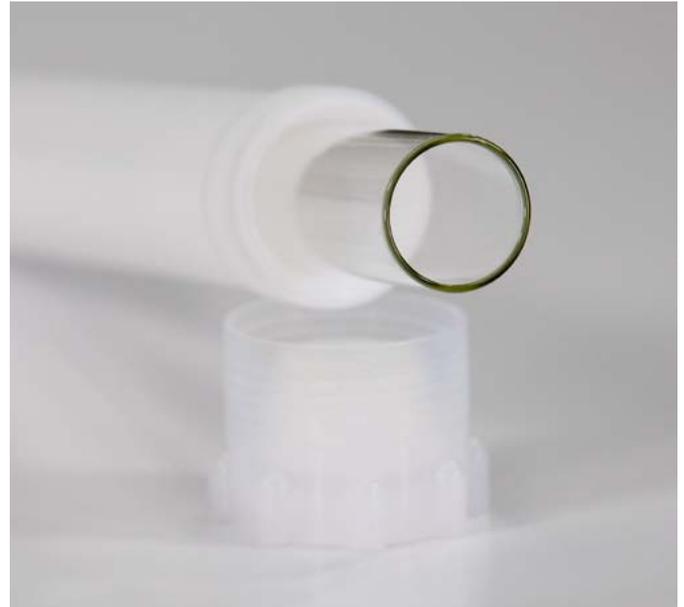
Glass and quartz inserts offer the greatest ease of use for high-throughput labs. Samples are weighed into the inserts and the acid mixture added. The insert is then loaded into the MARSXpress™ or MARSXpress™ Plus vessel and placed in the MARS 6 for digestion. The digested sample is removed from the vessel then diluted directly in the insert. This eliminates the sources of error and contamination associated with multiple transfer steps. After analysis, simply throw the insert away.

Disposable glass and quartz inserts are ideal for any application that runs below 210 °C including foods, feeds & fertilizers, plant and animal tissues, nutraceutical, pharmaceutical, and more.

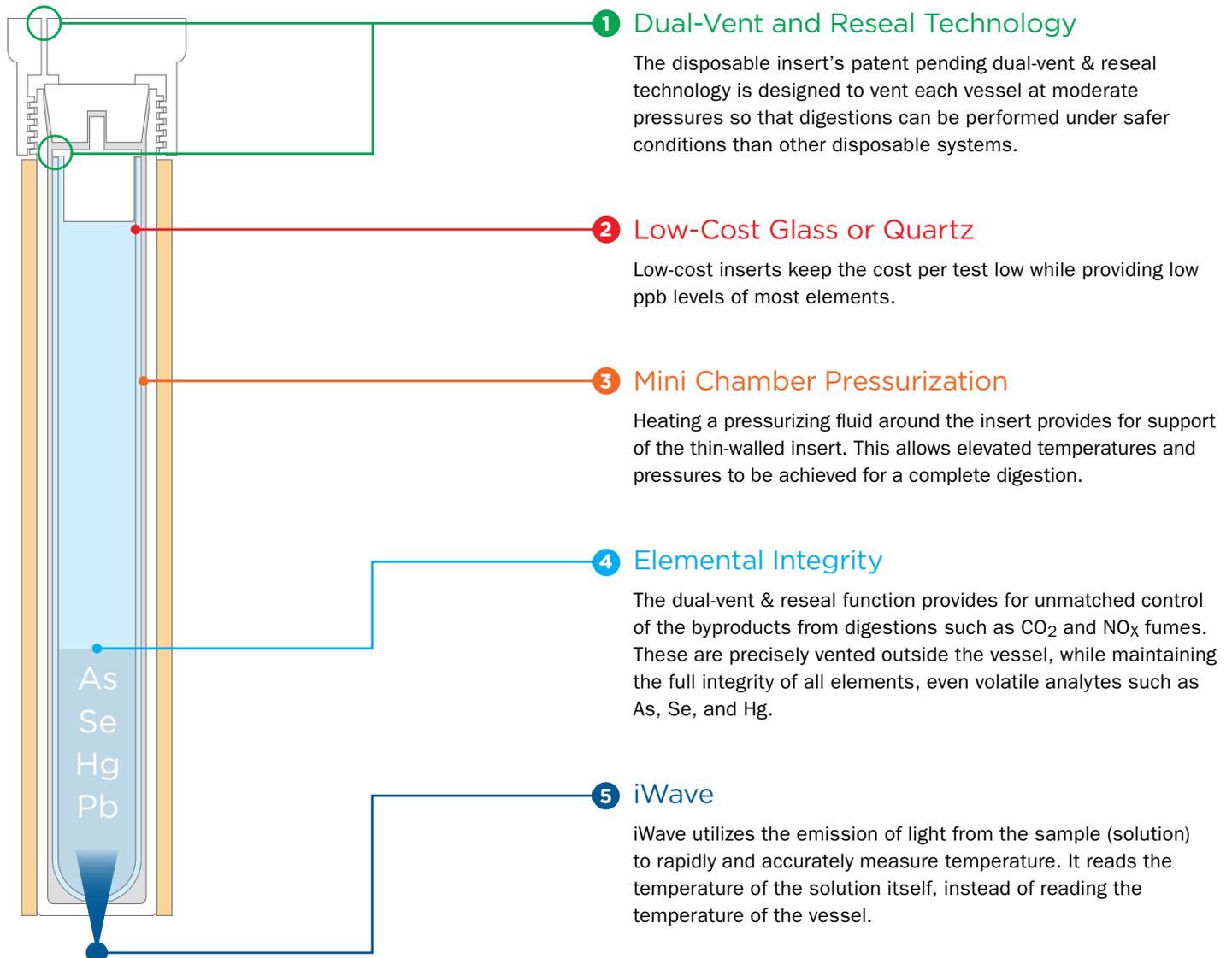


Increase Productivity

Disposable inserts are much less expensive than Teflon liners, so labs can easily stock up on dozens of inserts for simultaneous preparation of several sets at one time. While one set is being prepped with sample and acid another set is processing in the microwave, while the third set is on its way to the ICP or ICP-MS for analysis. This process allows for up to 72 samples to be processed per hour.



Innovative Design



Teflon Inserts

The Teflon insert protects the vessel from batch-to-batch contamination without washing vessels between runs. Simply form* a disposable insert and place it into the MARSXpress vessel, cap it, and run. When the digestion is complete, transfer your solution to an appropriate flask or vial and dispose of the insert. You are ready to start your next sample. Disposable inserts are the perfect accessory for high-throughput labs running US EPA 3051a and 3015a methodology. They can also be used for any digestion application run at or below 180 °C for 30 minutes or less.

*Disposable Teflon inserts require a manual flaring prior to use.



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