Calcium Carbonate Content Chamber HM-536

INTRODUCTION

The Calcium Carbonate Content Chamber quickly and easily determines the presence and amount of Calcium Carbonate ($CaCO_3$) in soil specimens. This device, also known as a Rapid Carbonate Analyzer, uses Hydrochloric Acid (HCl) to react with the Calcium Carbonate in an enclosed reactor vessel. Carbon Dioxide gas is generated and measured on the pressure gauge.

FEATURES

- Clear acrylic chamber for easy sample viewing
- Corrosion resistant anodized aluminum end caps
- Easy to read pressure gauge
- Meets ASTM D4373

OPERATING INSTRUCTIONS

Hydrochloric Acid (HCl) is highly corrosive, use care in handling and disposing.

Consult ASTM D4373 for full test procedure and calibration instructions.

1. Calibrate the chamber and gauge according to ASTM D4373 section 10.
2. Weigh out a 1.0 +/- 0.01g soil specimen and place into the chamber.
3. Add 20 +/- 2mL of 1N HCl into the plastic cup and place in the chamber.
4. Seal the top cap of the reactor and close the pressure relief valve.
5. Tilt the chamber to initiate the reaction between the acid and the soil specimen. Mix the contents by swirling or gentle shaking.
6. Monitor the pressure reading on the gauge for 10 minutes.

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7. Continue reading the pressure until the reaction is complete and the gauge stabilizes.
8. Compare pressure readings and determine the percent calcite equivalent from the Calibration data to determine the Carbonate Content.
9. After test completion, release the pressure by opening the release valve. Remove the top cap and dispose of the contents in accordance with local regulations. Clean and rinse the apparatus with distilled water.

ADDITIONAL ACCESSORIES AND REPAIR PARTS

RPHM-536-2 Plastic Cup
RPHM-536-3 #228 Viton O-Ring
RPHM-536-4 #231 Viton O-Ring

Rev: 01/2020

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