Materials Compression Accessory
ME-8247
For Use with the Materials Testing Machine (ME-8236)

The Materials Compression Accessory is designed to work with the PASCO Materials Testing Machine (ME-8236) and the Comprehensive Materials Testing System (ME-8244). The Materials Testing Machine is a device for measuring force and displacement for various materials as the materials are stretched, compressed, sheared, or bent. The Materials Testing Machine has a built-in load cell (strain gauge transducer) capable of measuring up to 7100 newtons (N) of force (1600 pounds), and an optical encoder module that measures displacement of the load bar. Force data from the load cell and displacement data from the encoder module can be recorded, displayed, and analyzed through a PASCO Interface with PASCO Data Collection Software. The sensor cable from the Materials Testing Machine connects to a PASPORT interface such as the PS-2100A USB Link.

Materials Compression Accessory (ME-8247)

The Materials Compression Accessory is designed to work with the Materials Testing Machine to compress samples. The Compression Accessory consists of two one inch (2.54 cm) diameter platforms that provide a sturdy base for compression samples.

The Materials Compression Accessory includes twenty Materials Compression Samples (ME-8248). The polyethylene cylinders are approximately 0.5 in (1.3 cm) in diameter and 0.75 in (2 cm) long. The illustration shows a compression sample between the upper and lower parts of the Materials Compression Accessory.

Included Items

- Materials Compression Accessory
- Materials Compression Samples (ME-8248)

Recommended Items*

- Materials Testing System* (ME-8230)
- Materials Testing System Accessories*
- PASCO Data Collection System*

*See the PASCO catalog or web site at WWW.PASCO.COM

Introduction

The Materials Compression Accessory is designed to work with the PASCO Materials Testing Machine (ME-8236), part of the Comprehensive Materials Testing System (ME-8244). The Materials Testing Machine is a device for measuring force and displacement for various materials as the materials are stretched, compressed, sheared, or bent. The Materials Testing Machine has a built-in load cell (strain gauge transducer) capable of measuring up to 7100 newtons (N) of force (1600 pounds), and an optical encoder module that measures displacement of the load bar. Force data from the load cell and displacement data from the encoder module can be recorded, displayed, and analyzed through a PASCO Interface with PASCO Data Collection Software. The sensor cable from the Materials Testing Machine connects to a PASPORT interface such as the PS-2100A USB Link.

Materials Compression Accessory (ME-8247)

The Materials Compression Accessory is designed to work with the Materials Testing Machine to compress samples. The Compression Accessory consists of two one inch (2.54 cm) diameter platforms that provide a sturdy base for compression samples.

The Materials Compression Accessory includes twenty Materials Compression Samples (ME-8248). The polyethylene cylinders are approximately 0.5 in (1.3 cm) in diameter and 0.75 in (2 cm) long. The illustration shows a compression sample between the upper and lower parts of the Materials Compression Accessory.

Included Items

- Materials Compression Accessory
- Materials Compression Samples (ME-8248)

Recommended Items*

- Materials Testing System* (ME-8230)
- Materials Testing System Accessories*
- PASCO Data Collection System*

*See the PASCO catalog or web site at WWW.PASCO.COM

Introduction

The Materials Compression Accessory is designed to work with the PASCO Materials Testing Machine (ME-8236), part of the Comprehensive Materials Testing System (ME-8244). The Materials Testing Machine is a device for measuring force and displacement for various materials as the materials are stretched, compressed, sheared, or bent. The Materials Testing Machine has a built-in load cell (strain gauge transducer) capable of measuring up to 7100 newtons (N) of force (1600 pounds), and an optical encoder module that measures displacement of the load bar. Force data from the load cell and displacement data from the encoder module can be recorded, displayed, and analyzed through a PASCO Interface with PASCO Data Collection Software. The sensor cable from the Materials Testing Machine connects to a PASPORT interface such as the PS-2100A USB Link.

Materials Compression Accessory (ME-8247)

The Materials Compression Accessory is designed to work with the Materials Testing Machine to compress samples. The Compression Accessory consists of two one inch (2.54 cm) diameter platforms that provide a sturdy base for compression samples.

The Materials Compression Accessory includes twenty Materials Compression Samples (ME-8248). The polyethylene cylinders are approximately 0.5 in (1.3 cm) in diameter and 0.75 in (2 cm) long. The illustration shows a compression sample between the upper and lower parts of the Materials Compression Accessory.

Included Items

- Materials Compression Accessory
- Materials Compression Samples (ME-8248)

Recommended Items*

- Materials Testing System* (ME-8230)
- Materials Testing System Accessories*
- PASCO Data Collection System*

*See the PASCO catalog or web site at WWW.PASCO.COM

Introduction

The Materials Compression Accessory is designed to work with the PASCO Materials Testing Machine (ME-8236), part of the Comprehensive Materials Testing System (ME-8244). The Materials Testing Machine is a device for measuring force and displacement for various materials as the materials are stretched, compressed, sheared, or bent. The Materials Testing Machine has a built-in load cell (strain gauge transducer) capable of measuring up to 7100 newtons (N) of force (1600 pounds), and an optical encoder module that measures displacement of the load bar. Force data from the load cell and displacement data from the encoder module can be recorded, displayed, and analyzed through a PASCO Interface with PASCO Data Collection Software. The sensor cable from the Materials Testing Machine connects to a PASPORT interface such as the PS-2100A USB Link.

Materials Compression Accessory (ME-8247)

The Materials Compression Accessory is designed to work with the Materials Testing Machine to compress samples. The Compression Accessory consists of two one inch (2.54 cm) diameter platforms that provide a sturdy base for compression samples.

The Materials Compression Accessory includes twenty Materials Compression Samples (ME-8248). The polyethylene cylinders are approximately 0.5 in (1.3 cm) in diameter and 0.75 in (2 cm) long. The illustration shows a compression sample between the upper and lower parts of the Materials Compression Accessory.

Included Items

- Materials Compression Accessory
- Materials Compression Samples (ME-8248)

Recommended Items*

- Materials Testing System* (ME-8230)
- Materials Testing System Accessories*
- PASCO Data Collection System*

*See the PASCO catalog or web site at WWW.PASCO.COM

Setup

Put the longer threaded end of the upper Materials Compression Accessory (Part 2 of 2) up through the hole in the Load Bar and use the Load Bar Sample Nut to secure the part in place. Screw the larger diameter threaded end of the lower Materials Compression Accessory (Part 1 of 3) into the top of the Load Cell.

Mount the compression sample to be tested in the center of the lower part of the accessory.

Operation

Basic operation involves mounting the accessory onto the Materials Testing Machine, placing the sample on the Materials Compression Accessory, connecting the Materials Test-
ing Machine to an interface for data recording, and then turning the crank.

**Attach the Safety Shields**

Attach the safety shields that come with the Material Testing Machine. Match the Velcro® hook material on the two safety shields to the Velcro® loop material on the front and back of the Load Bar. Adjust the position of the shields so that they will block any fragments that may come from the sample.

**Caution: Be sure to wear adequate eye protection when using the Materials Testing Machine or its accessories. Operate the System from behind a protective shield.**

Turn the crank clockwise to raise the Load Bar if needed so that the sample to be tested can be placed on the platform attached to the Load Cell.

Turn the crank counter-clockwise to apply a compression force to the test sample.

**Experiment Guide**


Enter “Materials Testing System” in the Search window and look for the downloadable file(s) under “User Resources”.

**Replacement Items**

Replacement Compression Samples are available. Order ME-8248 (20 polyethylene samples).

**Other Compression Materials**

Other materials can be tested using the Compression Accessory. The criteria for the material is that it must fit between the two platforms and not extend over the edge of the platforms. The illustration shows a sample of sidewalk chalk undergoing compression.