

## HTM-1 OPTICAL TRANSMISSION METER



### Fast, Simple and Economical

Ideal for measuring the opacity of plastic, paper and glass products.

Extruded, sheet-formed, cast and molded products frequently have a minimum opacity specification to prevent "show-through" of printing, fill-levels or packaged contents. Opacity can be controlled by increasing the pigment used in the base material. Since pigments are typically 3 to 20 times more expensive than base material, it is vital to know the least amount of pigment necessary to achieve the required opacity.

The HTM-1 pays for itself in product development and production control by ensuring the least amount of pigment is used. Far superior to the human eye, it provides 15 times greater sensitivity to intensity variation and is equal regarding the spectral (color) response.

The percent of light transmission through the sample is automatically shown on the display. The equivalent opacity value can be obtained by simply subtracting the displayed value from 100. Thus a material that measures 20% transmission is 80% opaque. The source lamp is a controlled Type "A" illuminant to avoid UV and fluorescence errors when optical brighteners or fluorescing colorants are used in the product. Long term measuring and optical stability is assured by the use of time-tested glass VISCOR® filters and Phototronic® detectors.

### Technical specifications

**Opacity Range**

Optical Transmission Range: 0-100%

**Resolution**

1% (0.2% available by interpolation)

**Linearity**

±0.5%

**Source Lamp:**

10 Watts at 12VDC input (Can be operated at 9VDC for longer lamp life)

**Source Lamp Output**

140 Lumens initial

**Source Lamp Color Temperature**

2950°K

**Source Lamp Rated Life**

2000 hours

**Detector Spectral Response**

Photopic, 568nm peak

**Detector Linearity**

Greater than 99% at working light levels

**Power Supply**

120 VAC, 0.15A

**Dimensions (W x H x D)**

79.4 x 101.6 x 177.8 mm

**Weight**

29 oz

**Maximum Sample Thickness**

.065 inch (1.65 mm)