

BQM

BOARD QUALITY MEASUREMENT UNIT



FEATURES

- Measures Corrugated Board Medium Equivalent Shear Stiffness
- Robust, Low-cost measurement device
- Non-destructive Test Measurement
- Portable- can be used in the lab or production floor
- Fast Measurement- 4 second test time
- Battery Operation – unit powered by NiMH rechargeable batteries
- Minimal Sample Preparation- sample greater than 4.7 in (120 mm)
- LCD Display of Equivalent Shear Stiffness Result

It is important to quantify the structural effects of corrugated medium after the board material is converted. **BQM** was developed to measure the end results of the shearing effects which occur on the corrugated medium during a converting process. The portable BQM device measures equivalent shear stiffness which has a direct relation to board structural strength.

BQM uses a Frequency Resonance response technology to scan the flute between the walls of the carton board. The strength of the corrugated box to withstand a vertical load depends greatly on the strength of the flutes. The damage which occurs to the flutes during production is rarely seen but critical to box performance. Until now, this was a tedious and time consuming measurement.

OPERATION

The **BQM** is very easy to use and requires minimal sample preparation. During a test the sample is suspended over a 100 mm (3.9 in) gap. The

operator selects the board flute type. The sensor unit is placed over the test area and the start key is depressed. The **BQM** takes a measurement and the test results are clearly displayed on the LCD screen within in 3-6 seconds.

IMPORTANCE

The output data from **BQM** provides the user accurate information as to both the suitability of the medium board quality for its intended purpose and the variation occurring in board quality. Corrugate carton manufacturers frequently incur damage to the corrugate board during the printing process in order to achieve sharp definition. Such damage may pass undetected and result in seriously weakened cartons being packed and shipped with expensive consequences resulting in product damage.

BQM highlights the variation in board quality within this process which can result in significant savings for the supplier and customer.

