APPLICATION NOTE





Adam Equipment's PMB 53 Moisture Analyzer Shines in Glass Manufacturing Applications

It has become crystal-clear to most of us that glass is something we just can't live without. Scientists use glass beakers for measuring chemicals. We wear eyeglasses to improve our vision or to make a fashion statement. Glass windows protect us from the elements.

But what goes into producing this incredibly useful material? It's a mixture of mostly silicon dioxide (sand) with some sodium silicate and calcium silicate thrown in for good measure.

It takes 10 tons of sand to make one ton of glass. That's a lot of sand, and the quality must be just right. Too little moisture means more sand is needed, increasing the cost. Too much moisture can lower productivity and cause quality issues, also boosting expenses.

That's why glass manufacturers rely on Adam Equipment's PMB 53 moisture analyzer to verify and maintain proper moisture levels in their sand supplies.

Adam's PMB 53 accurately analyzes the moisture content in sand in less than five minutes. And using the PMB 53 is easy. Simply place the specimen into the heating chamber and apply heat to the sample using the PMB's energy-efficient halogen lamp. The lamp evaporates moisture and calculates the amount of moisture weight loss to get the moisture content. After testing the moisture content of several batches of sand, it's simple to monitor and control the amount of sand going into the production of each batch of glass.

A benefit of the PMB 53 is its ability to retain and store set-up information, saving the time and effort of having to re-enter the information in the next analysis. This feature is used frequently in glass manufacturing. Often, glass companies run multiple PMB 53 units simultaneously, so they can expeditiously determine the moisture content of sand in large quantities, keeping production running smoothly and efficiently. That's especially important, as the proportional specifications vary greatly, depending on the type of glass being produced.

Features include a brightly backlit display that shows all data in one place. The USB and RS-232 interfaces allow speedy communication with computers and printers. Its internal memory stores up to 99 test results, and additional test results can be stored on a flash drive or a computer. This helps users keep records close at hand, helping them to accomplish the desired consistency in glass production.

PMB 53 provides results at 0.01%/1mg with a capacity of 50g. Its pan lifter makes placing and changing samples fast and easy. The large, circular heating chamber is designed to heat evenly with a single 400-watt halogen lamp. Its ergonomic design has handles on both sides for easy access. Color-coded keys highlight important functions, and an intuitively designed keypad makes operation simple.

When it's important to maintain quality and consistency in production, choose Adam Equipment's PMB 53 to completely and affordably meet your moisture analyzing needs. Adam also offers the PMB 202, which features a higher capacity of 200g and provides results at 0.05%/10mg.