

Dissolved Water (hydroxyl) in Glass using an InfraCal Hydroxyl in Glass Monitor



Water gets into glass in several ways. Different glassmaking processes (the melting of sand, sodium carbonate, etc.) can cause differences in the water content of the resulting glass. Natural gas versus fuel oil used in furnaces affects water content. Some large glass furnaces burn the natural gas in pure oxygen rather than air. The result is a higher water content in the glass. Electrically fired furnaces have no combustion moisture and produce extremely dry glass.

When it comes time to re-heat the glass for applications such as automotive glass, wetter glasses absorb radiant energy more rapidly than drier glasses and thus soften at slightly lower temperatures. Furnace temperatures need to be adjusted

according to water content. Glass coming from different sources can vary substantially in water content. It is important to avoid mixing different types of glass going into the furnace so the fabrication process is consistent.

A special model of the InfraCal Filtometer with extended sample arms offers a quick and very sensitive method of determining water content in glass sheets. The InfraCal Filtometer is a fixed filter infrared analyzer that can measure water content from a few ppm to 0.2%. The sample arms are placed over and under a sheet of glass, the "run" button is pressed and the display will read water content to .000x% in less than one minute.

The InfraCal Filtometer is rugged, compact (6.5 x 6.5 x 5"), weighs less than 5 lbs, and requires just 12 volts of d.c. power - making it ideal for use in the manufacturing area or in the QC laboratory. It's user friendly operation is easy for production personnel to use with minimal training.

Ordering Information

405-1007 **InfraCal Hydroxyl in Glass Monitor, Model HGM**
Complete with 6" extension arms for sheet glass analysis, Power Supply
and Instruction Manual

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