

METTLER TOLEDO APPLICATION NOTE

Neutralization In Washing Machines

BACKGROUND

In almost every city, large laundries have been established to wash clothes and towels from companies, hospitals, etc. The process is carried out in big washing machines. Monitoring the pH value of the rinsing water is important in improving the quality of this cleaning process.

THE PROCESS

In order to optimize the cleaning process, the pH value in the rinsing water has to be known, and preferably controlled.

In-line pH systems with controllers are installed in the chambers of the washing machine, and an additional pH system is located in the last chamber to check the final pH. The preferred pH of the rinse water is < 7.5 , preferably 7.0 ± 0.2 , which results in less irritation to the skin and better quality of cleaned washing.

INSTRUMENTATION

For this type of application InPro[®] 4200 solid polymer pH electrode is recommended in conjunction with the InTrac[®] 777-SL. The InPro 4200 features a Xerolyt[®] solid polymer reference, which has been formulated to maintain a stable potential for accurate and repeatable pH measurement and extend electrode lifetime. The InTrac 777-SL allows maintenance (cleaning, recalibration) without interruption of the process.

This system is compatible with the 2100 pH analyzer.

PRODUCTS

2100 pH Analyzer

- Detachable front panel and plug-in terminals for ease of installation
- All functions accessible through the keypad for increased ease of use
- Continuous sensor and transmitter diagnostics to monitor performance
- FM certification for Class I, Div 1 & 2 Environments and CSA General Purpose Approval
- 3 year warranty

InPro® 4200 Solid Polymer pH Electrode

- Patented Xerolyt® solid polymer reference system maintains a stable potential for accurate and repeatable pH measurement and low maintenance
- Open junction eliminates reference clogging and extends sensor life
- High pressure resistance eliminates requirement for pressurizable housing
- Integral RTD for higher measurement accuracy
- Rugged IP67 rated quick connect VarioPin connector

InTrac® 777-SL Retractable Housing

- Rugged 316L SS or PVDF construction for maximum chemical resistance
- Flushing chamber for automatic cleaning and calibration reduces overall system downtime
- Patented immersion tube design isolates the sensor on retraction and guarantees complete separation of the process from the outside environment.
- Safety interlocks prevent sensor removal from housing while in measuring position
- Manual or pneumatic operation