

HK INSTRUMENT SYSTEMS

Pittsburgh, PA

SURFACTANTS – FABRIC SOFTENER

APPLICATION: TO MEASURE THE % TOTAL SOLIDS (ACTIVITY) OF A MIXTURE OF FABRIC SOFTENER AND WATER IN A RINSING VESSEL.

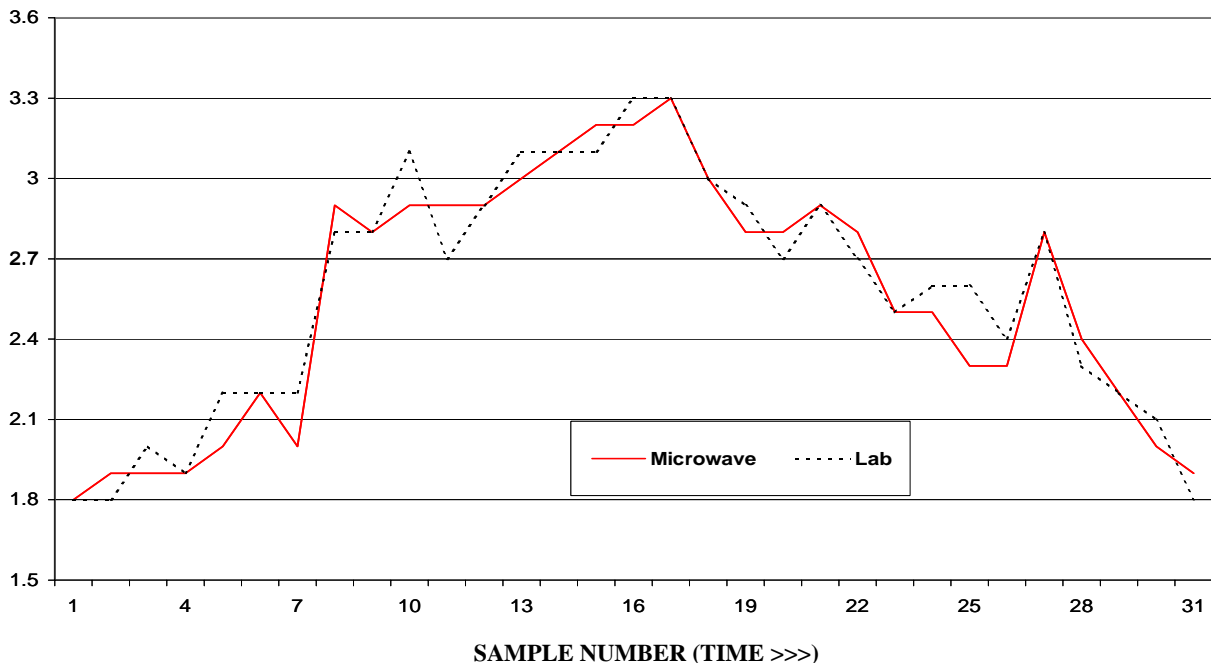
INSTALLATION: THE HK-2 M IS INSTALLED WITH A 2 INCH SPOOL PIECE IN A RECIRCULATION LINE. THE MIXTURE IS PUMPED FROM THE RINSING VAT PAST THE MEASURING SENSOR, AND BACK INTO THE VESSEL. THE RATE OF WATER BEING ADDED WILL VARY ACCORDING TO THE HK-2M. THE SPOOL PIECE IS MOUNTED VERTICALLY.

TESTING: SAMPLES WERE COLLECTED FROM A SAMPLE PORT IN THE RECIRCULATION LINE, AND ANALYZED WITH A HAND HELD REFRACTOMETER.

RESULTS: CORRELATION BETWEEN THE HAND HELD REFRACTOMETER AND THE HK-2 M IS GOOD. HAND HELD REFRACTOMETRS MUST BE USED CAREFULLY DUE TO HIGH OPERATOR VARIABILITY.

LAB OVEN vs MICROWAVE FOR FABRIC SOFTENER

% TOTAL SOLIDS



CONCLUSIONS: THE HK-2 MICROWAVE INSTRUMENT SYSTEM IS AN EXCELLENT TOOL THAT CAN BE USED TO MONITOR AND CONTROL THE % TOTAL SOLIDS OF A FABRIC SOFTENER AND WATER MIXTURE. ADDITIONAL APPLICATIONS:

- CONTROL THE % TOTAL SOLIDS OF A FABRIC SOFTENER DURING PRODUCTION.