

## SUPERIOR WATER CONDITIONERS AND REDUCTION IN SURFACE TENSION

KRUSS Lab results show **50% reduction** in Surface Tension with Superior Water Conditioner



### Benefits of Reducing Surface Tension

- Prevent new scale formation
- Dissolve and remove existing scale
- Improve Soap & Detergent Effectiveness
- Reduce water spots

### Objective

KRUSS Lab wanted to test if Superior Water Conditioners (SWC) reduce surface tension in three types of water: chlorinated city water, dechlorinated city water, and well water - using standardized third-party lab testing

### Conclusion

The Superior Water Conditioner demonstrated a significant **reduction in surface tension of over 50%** across all tested water types—chlorinated city water, dechlorinated city water, and well water—according to testing conducted by KRÜSS Labs. Measurements were taken before and after treatment, confirming the positive effects of the conditioner.

**Testing Procedure/Results on Reverse →**



### INDEPENDENT 3RD-PARTY TEST RESULTS

Scan to see detailed findings from KRÜSS Labs that validates our product claims.



## Testing Method

The Wilhelmy method measures surface tension by partially immersing a thin vertical plate into a liquid and recording the force exerted on it. This force, combined with the plate's dimensions, allows for accurate calculation of surface tension. It's a widely used, reliable technique—particularly effective for water (Fig. 1).

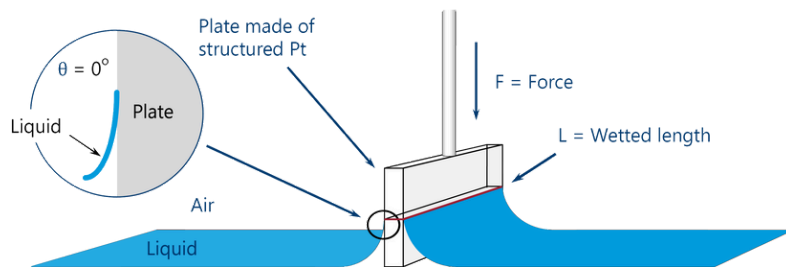


Fig. 1 Direct Measurement of Surface Tension Without Correction

## Testing Procedure

The tests were conducted using the following standardized procedures to ensure consistency, accuracy, and reliability in the results:

1. The KRÜSS Tensião tensiometer was validated by measuring the surface tension of distilled water at room temperature using a cleaned, flame-treated Wilhelmy Plate. The result (72.28 mN/m) fell within the expected range of  $72.8 \pm 1$  mN/m at  $20^\circ\text{C}$ .
2. The surface tension of chlorinated city water was measured at room temperature using a cleaned, flame-treated Wilhelmy Plate.
3. The same chlorinated city water sample was passed once through the Superior Water Conditioner and then re-tested using the same method.
4. Steps 2 and 3 were repeated for the remaining samples: dechlorinated city water and well water.

## The Results

Independent testing conducted by KRÜSS Labs confirmed the effectiveness of the Superior Water Conditioner. Using the Wilhelmy method, the lab measured the surface tension of three water types—chlorinated city water, dechlorinated city water, and well water—both before and after treatment. The results showed a significant reduction in surface tension across all samples, with each demonstrating a decrease of more than 50% after passing through the conditioner. These findings validate the product's performance and reinforce its role in enhancing water behavior for a range of residential applications (Fig. 2).

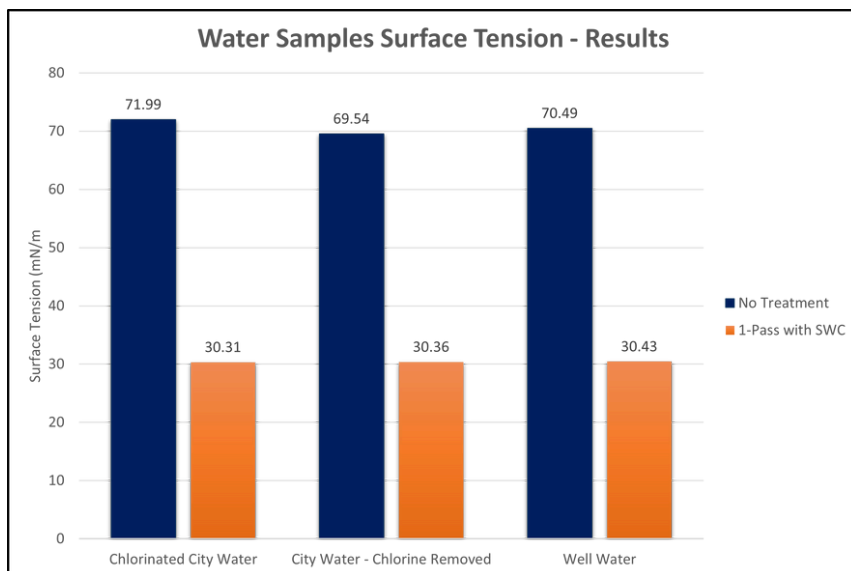


Fig. 2 Results of Wilhelmy Test on Conditioned Water