

# Quadro Ytron®

## DISPERSION OF XANTHAN GUM INTO WATER

### BACKGROUND

Xanthan gum is a hydro-colloid gum and is microbial in origin. It is a complex polysaccharide produced from the fermentation of the micro-organism *Xanthomonas campestris*.

Xanthan gum is an effective and versatile rheology modifier with pseudo-plastic characteristics. It is typically used as a thickener, emulsifier or suspending agent to a wide variety of industries to provide stability, improved textural qualities and/or pouring characteristics. Applications include salad dressings, sauces, beverages, dairy products, low-calorie foods, soups, desserts, cosmetics, pharmaceuticals, creams, lotions, cleaners, coatings and adhesives.

Xanthan gum is extremely difficult-to-disperse into water without creating lumps or “fish-eyes”. Typical problems associated with dispersing Xanthan include: long batch times, filtering of lumps in final product (powder waste), powder build-up in process vessels and “gumming” of mixing equipment and process vessels. Processors have developed methods to assist in the hydration of Xanthan including the pre-blending of Xanthan with other powders and the pre-dispersion of Xanthan into oil or glycol using a separate gum hydration tank. These extra steps require added expense/time.



“Fisheye” Formation With A Conventional Mixer

### QUADRO YTRON® PERFORMANCE

The Quadro Ytron® Model ZC In-line Powder Dispenser is capable of dispersing Xanthan gum into water quickly and completely lump-free, in a single-pass. The ZC unit has been shown to yield approximately 30% higher viscosities than traditional methods. Consistent viscosities from batch-to-batch are accomplished with single-pass, uniform and consistent shear applied by the ZC to all of the Xanthan powder. Gum hydration tanks, pre-dispersion fluids and post-filtering are not required with the use of the ZC. The ZC technology is capable of producing single-pass, lump-free Xanthan gum solutions at flow rates from 15 to 120 USGPM (60-450 LPM).



Homogeneous Dispersion With The Ytron ZC

### SUMMARY

The Ytron ZC disperses Xanthan gum into water more quickly, more consistently, achieving better quality, with less equipment, and more reliably than traditional methods. The Ytron equipment's versatility, cleanability (3A approved), simplicity and low maintenance make it ideal for use in the Food and sanitary product related industries.



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