

|                 |                |                        |
|-----------------|----------------|------------------------|
| Specs #: DSXG61 | Version #: 006 | Issue date: 2012.03.01 |
|-----------------|----------------|------------------------|

## Ziboxan® TP80 Specification

**Ziboxan® TP80** -Xanthan Gum Toothpaste grade

### DESCRIPTION:

**Ziboxan®TP80** is normal powder xanthan gum produced by fermentation of corn starch and soy protein with *Xanthomonas campestris*. Its solutions are neutral, suitable for use in toothpaste as stabilizer, thickener.

### SPECIFICATION:

| Properties                        | Specifications                                                      |
|-----------------------------------|---------------------------------------------------------------------|
| Appearance                        | cream colored powder                                                |
| Viscosity (1% solution in 1% KCL) | 1300-1800mPa.s (cP)                                                 |
| pH (1% solution)                  | 6.0-8.0                                                             |
| Loss on Drying                    | max. 13%                                                            |
| Ash                               | max. 13%                                                            |
| Particle size                     | 100% through 60mesh(250micro)<br>min. 95% through 80mesh (180micro) |
| Heavy metal                       | max. 20ppm                                                          |
| Lead                              | max. 2ppm                                                           |
| Arsenic                           | max. 3ppm                                                           |
| Microbiological                   |                                                                     |
| Total plate count                 | not more than 2000cfu/g                                             |
| Yeast/mold                        | not more than 100cfu/g                                              |
| E. coli                           | absent/25g                                                          |
| Salmonella                        | absent/25g                                                          |
| Cellulase                         | Negative                                                            |

### PACKAGE:

Carton box or multiple paper bags of 25kg net each or equivalent. Custom packaging available.

### STORE:

Sealed and stored in cool, dry conditions.

### SHELF LIFE:

Two years.

### QUALITY AND SAFETY ASSURANCE:

Ziboxan® TP80 production is controlled under certified quality system ISO9001 and product safety is ensured by an established safety system.

### NOTE:

Kosher Approved  
Halal Certified  
ISO14001 Certified  
OHSAS18001 Certified  
HACCP  
BRC Certified

### TEST METHOD:

Full details and test method are available on request.

The information and/or suggestions presented on this product are the results of the testing and observations carried out in our laboratories, and we believe them to be accurate as expressed. Because we cannot anticipate the many conditions under which this information may be used, we offer this information as a guideline only to assist our customers in the use of our products, and to help them determine the applicability of the product to their formulation(s). It is the responsibility of the customer to determine the usefulness, regulatory status and legality of our product in the customer's application and the customer assumes all responsibility for loss or damage arising from the use of our products.

|                 |                |                        |
|-----------------|----------------|------------------------|
| Specs #: DSXG61 | Version #: 006 | Issue date: 2012.03.01 |
|-----------------|----------------|------------------------|

## Ziboxan<sup>®</sup> TP80 Specification

1. **Appearance**  
By visual.
2. **Viscosity (1% Solution)**  
Prepare a 1% salt solution of product by slowly adding a dry blend of 3.0 g of product and 3.0 g of potassium chloride to 250 ml of distilled or deionized water in a 400 ml beaker, while stirring at 800 rpm using a low-pitched propeller type stirrer. Add an additional 44 ml of distilled or deionized water, rinsing the walls of the beaker, and continue stirring at 800 rpm for 2 hours. At the end of this period, adjust the temperature of the solution to 25°C (77°F), stirring by hand in a vertical motion to eliminate any layering effects. Measure the viscosity immediately using Brookfield LV viscometer at 60 rpm, with spindle no. 3, at 25°C.
3. **pH**  
Measure the pH at 25°C by testing a solution prepared as above, but omitting the potassium chloride, using a pH meter.
4. **Loss on Drying**  
Spread 2-5 g product evenly on a pre-dried tared watched glass and weigh accurately. Dry in an oven at 105 ± 1°C for 2.5 hours. Cool in a desiccator and re-weigh.
5. **Ash**  
Using a suitable furnace, ash 3 g of product, pre-dried at 105 °C for 4 hours, in a platinum crucible at 650 °C until no carbon remains.
6. **Particle Size**  
Sieve 20 g product on the specified British Standard Screens for 10 minutes each screen. Record the weight of product remaining on each screen and calculate the percentage which passes through each specified screen.
7. **V1/V2**  
V1/V2 may be determined by FCC V for xanthan gum.
8. **Pyruvic acid**  
Use the procedure defined in the current FCC V for xanthan gum.
9. **Total Heavy Metals**  
These metals may be determined by USP28
10. **Lead**  
Lead may be determined by USP28
11. **Arsenic**  
Arsenic may be determined by USP28
12. **Microbiological Limits**  
For bacteria (TVMAC), yeast and mold *E coli*, *salmonella* follow the procedures as given for microbial limit tests in the current edition of the USP28. Method for coliform is available on request. For bacteria, plate out 4 ml of 0.25% solution and incubate for 48 hours at 35-37degrees C. For yeast and mold plate out 4 ml of 0.25% solution on acidified potato dextrose agar and incubate for 5 days at 25-28 degrees C. Express results as colony forming units (c.f.u.) per gram