



Actigum™VSX 20  
texturizer

Personal care

## The nature-derived, high performing texturizer for challenging conditions

Globally, consumers increasingly make better educated purchase decisions, choosing innovative products which are more natural and sustainable. Without compromising on performance, Cargill offers you a range of nature-derived ingredients and the reformulation expertise to create products that perfectly match consumer demand, ultimately helping you achieve sustainable growth.

Based on polysaccharides of natural origin, **Actigum™VSX 20** is a texturizing architect with many talents. It builds up the viscosity of your products and reinforces their stability. From an aesthetic perspective it delivers smoothness, delicate shine and lightness to creams, and helps produce translucent gels with a silky and brilliant texture. Across the board it provides good moisturizing benefits.

### **NATURE WITHIN - A synergistic combination of Xanthan gum and Scleroglucan**

**Actigum™VSX 20 texturizer** is a rheology modifier that builds over the well-known properties of two highly safe and nature-derived ingredients:

> **Scleroglucan** is a natural origin polysaccharide produced by the aerobic fermentation of sugars with the fungus *Sclerotium rolfsii*. Its non-ionic character makes it compatible with a wide range of ingredients – usual electrolytes, all types of surfactants, glycols & polyols or alcohol – making it a versatile problem solver.

> **Xanthan gum** is produced by the aerobic fermentation of sugars by the bacterium *Xanthomonas Campestris*. Cargill's Xanthan gum is used in a highly purified grade and has the ability to thicken alcohol up to 60%.

## Functions

- One-fits-all thickener which tolerates extreme pH, temperature and electrolytes
- Powerful suspending and stabilizing agent

## Activity

- Excellent moisturizing properties
- Good foam stabilizer

## Ecocert validated

The combination of those 2 nature-derived polymers provides enhanced functional benefits:

- A high yield value resulting in good suspending properties
- A higher viscosity than what can be obtained with the individual ingredients at the same dosage

## RHEOLOGY - A shear thinning behavior

When shear stress is applied, Actigum™VSX 20 texturizer's viscosity drops. When shear stress ceases, the structure regains part of its original consistency. This property will help enhance users' experience:

- it eases the flow of the product out of the packaging while avoiding drips and spills,
- as the structure of the product reconstitutes itself when the stress stops, the texture will pleasantly hold on the cotton or the skin, thus allowing a more pleasant application.

In addition, Actigum™VSX 20 texturizer recovers some viscosity even when exposed to high temperatures – a useful asset in sun care formulation. The drop in viscosity of Actigum™VSX 20 texturizer increases with the shear rate. This property, combined with the specific conformation of the product, makes it a prime choice ingredient for sprayable formulas.

## High Yield value

Actigum™VSX 20 texturizer has a high yield value and, as a result, shows good suspending properties and allows creating emulsifier-free formulations. Moreover, its ability to prevent the coalescence of droplets makes it a good co-stabilizer (see figure 1).

## APPLICATION BENEFITS

### Skin & sun care

Actigum™VSX 20 texturizer delivers good moisturizing properties with immediate and long lasting benefits. This property has been substantiated by a study on a panel of 20 volunteers applying a cosmetic cream once a day during one month. Hydration was measured with a corneometer (see figure 2).

### Toiletries & hair care

Actigum™VSX 20 texturizer helps produce a fine foam. In shampoo, it improves foam stability and speeds up foam formation time. In addition, it makes combing easier and leaves a soft feeling on the hair. In shower gels, it is easy to rinse and provides your skin with a very soft feel.

### SENSORIAL PROPERTIES - Make it shiny

Actigum™VSX 20 texturizer acts as a sensorial enhancer. It brings soft and silky textures to creams, providing them with an incomparable shine (see figure 3).

In toiletries or hair care formulations, Actigum™VSX 20 texturizer allows you to formulate the silky texture of gel, making it perfectly soft and extremely shiny with a pleasant after-feel.

## APPLICATIONS

Skin care, sun care, hair care, bath & shower gel, etc.

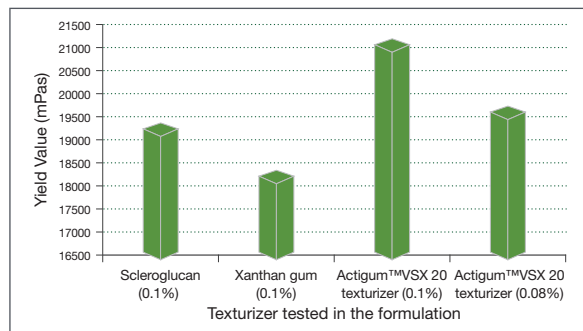


Figure 1: Comparison of yield value obtained in a body milk formulation

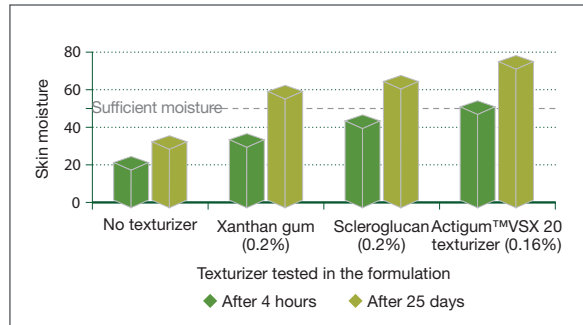


Figure 2: Evaluation of the moisturizing properties of a face cream formulation (by Corneometry)

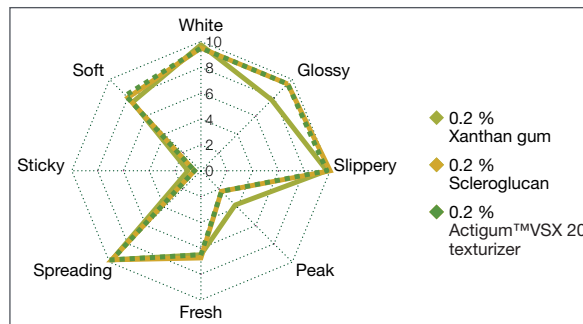


Figure 3: Analysis of the sensorial properties of a face cream

## FORMULATION GUIDELINES

- INCI NAME: sclerotium gum and xanthan gum
- Form: beige, off-white-powder
- Recommended dosage: 0.10%-0.50%
- Stable in extreme pH and T°C conditions
- Good compatibility with surfactants (addition of salt with cationic surfactants)
- No neutralization required

## INSTRUCTIONS FOR USE

Disperse Actigum™VSX 20 texturizer in the aqueous phase. Then, mix it, homogenizing until complete solubilization. Viscosity will develop only after applying high shear. While heat treatment improved dissolution, it is not compulsory to ensure good solubilization.

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SSVSX20 - (03.15)

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