Lucid Colloids Ltd.

Thixoid® Guar Gums & Derivatives for Textiles

Thixoid® series products are modified water-soluble polymers (Hydrocolloids) mainly Guar Gum and Tamarind Gum and their Derivatives. They are available as a fine dry powder. They are specially designed to thicken the water phase and thereby manage the rheology of printing pastes in fabric printing applications. The products are modified to achieve specific rheological behaviour. The products are designed to achieve the following:

- Good print definition in terms of sharpness and minimum
- flushing. Optimised rate of dye paste transfer onto the fabric.
- Desired shear-stable rheology at high speed/shear applications (example rotary) as well as
  slow-medium speed/shear (example automatic and semi-automatic flat bed, manual
- flatbed). Least interference with colour values, tones and brightness of shade.
- Good retention and fixation of dyestuffs onto the fabric.
- Least interference with fabric handle by easy removal at the end of the process through wash- off.
- Good stability to dyes and auxiliaries normally used in the
- application. Ease of making-up stock and dye pastes.
- Optimised economy.
- Consistency in supply.

Manufacture

Thixoid® series products are manufactured by Lucid Colloids Ltd. at our modern plant in Jodhpur, Rajasthan. The plant was set up in 1974 and is ISO 9001 certified

Grades

Thixoid® series products are available in various grades to suit varied applications. These grades differ in their rheological properties which are required for specific applications, depending on the printing method used, print definition required, economy etc. Detailed suitability chart for various grades of **Thixoid®** series products for specific applications is available.

Stock pastes

A high-speed stirrer is essential to form a smooth paste and avoid formation of lumps and to ensure complete hydration of the product. The recommended method is to sprinkle the product into a vortex created in the water by high-speed stirring. Continue to stir for at least 30 minutes and preferably 60 minutes. As viscosity develops, adjust the speed of the stirrer to compensate for increasing resistance due to viscosity development.

It is recommended to heat the solution/stock paste. Heating will speed up the rate of viscosity development and ensure complete solubility. It is advisable to avoid over-heating or over-cooking the solution as this may lead to irreversible loss in viscosity and necessitate the addition of higher amounts of the product, which leads to lower economy. It is preferable that the method used be indirect such as by jacketed vessels. If a direct heating method is used such as steam injection, care should be taken not to exceed stock paste temperatures of 80ºC.

Packing

Thixoid® series products are available in 25 kgs laminated paper bags with an appropriate inner moisture-barrier liner.

Shelf-life and storage

Thixoid® series products are normally stable in their dry form for a period of 12 months from date of manufacture when stored under recommended conditions. Stock pastes are normally stable for 72 hours from time of preparation.

Thixoid® series products must be stored in a cool dry place, out of the sun. Do not store in a high humid atmosphere. It is desirable that once a unit pack is opened it be used up in a reasonably short period to avoid ingress of moisture, which may cause the product to lump.

Material Handling and Safety

Thixoid® series products may contain preservatives to extend stock paste shelf life. It is possible that these preservatives may cause eye, throat, nose and skin irritation. It is therefore recommended that personnel handling **Thixoid®** series products adopt normal safety procedures when handling dry powder chemicals, such as gloves, eye, nose and mouth protection etc.

Detailed Safety Data Sheet is available on request.