

Product information

GELTACK®



General:

GELTACK® are protein adhesives of the company Fritz Häcker. They consist of Technical Gelatin.

Technical Gelatin is a natural product known for more than 4000 years. Hides and bones contain a „glue-forming“ substance called **Collagen**. Using chemical and physical processes, **Collagen** is converted into **Glutin**, a high-molecular substance, which is then extracted. After various cleaning and drying processes, Technical Gelatin is obtained in a granulate or powder form.

Technical Gelatin, if stored cool and dry, will keep its quality for an almost indefinite period of time. It is without reservation non polluting and will be completely decomposed in biological purification plants.

Properties:

Technical Gelatin is swelling, but not soluble in cold water. In this wet condition, it melts at temperatures over 30°C and forms a ready for use solution.

On cooling down, the warm gelatin solution will solidify. Even at low concentrations it forms a jelly. This transition from **solution** to **gel** results in a very quick adherence without proper drying. In most cases, sufficient initial strength is reached in such a way. After evaporation of the water, a much higher final bond strength will occur.

Technical Gelatin is suitable for joining and impregnating materials which allow its anchoring and the dissipation of water. It may re-dissolve in water, but is resistant to most organic solvents.

If exposed to temperatures over 65°C for a long time, **Glutin** will be changed into **Glucose**. As **Glucose** has no adhesive properties, a loss of quality will be experienced under these circumstances.

Qualities: The main quality features are viscosity and gelatinising power. These are measured at 60°C using a 12.5 % solution in water.

Our product range contains **GELTACK®** products of practically all quality grades.

The customary used **GELTACK®** products have a viscosity between 5.0 - 20.0 mPas * (1 mPas = 10 mP). The values for the jelly strength are between 120 - 450 Bloomgrams *.

To suit particular applications of our customers, we are able to offer **GELTACK®** products with higher or lower values.

Practical points: The concentration of the gelatin solution used is mainly dependent on the quality of the **GELTACK®** product and the type of application. For the preparation of a typical batch, approx. 25 parts (by weight) of **GELTACK®** are stirred into 75 parts (by weight) of cold water (not warmer than room-temperature). The swelling time is 2 hours for granulated gelatin and 1 hour for powder gelatin. After this swelling procedure, the preparation is molten whilst stirring in a water bath tank at temperatures between 50 to 65°C.

Shelf Life: Stored cool and dry, **GELTACK®** products have an unlimited shelf life.

Fields of application:	Adhesive	for paper, cardboard, wood, leather etc.
	Impregnating matter	for paper, cardboard, woven materials etc.
	Binder	for abrasives and cork
	Coating	for remoistable adhesive tapes and woven carrier material
	Component of modified glues	as produced by us under the name PLAKAL for the paper-converting industry
	Other	Flocculation in water-systems, Production of brushes and paint brushes, Production of foils, Ballistic bullet-trap, Additive for galvanic solutions

*International measuring units

The information in the present data sheet is based on the current technical knowledge and experience and are without obligation. The aforesaid data and information do not release the worker from his duty of care, in particular his trial and test obligations.

As per 01. October 2010