



AGRANA STARCH PAPER BAG GLUE



AGRANA STARCH

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is a wholly owned subsidiary of the AGRANA Holding AG, the holding company of the Austrian sugar and starch industry.

The production of starch, specially modified starch, as well as co-products, sourced from different raw material sources including

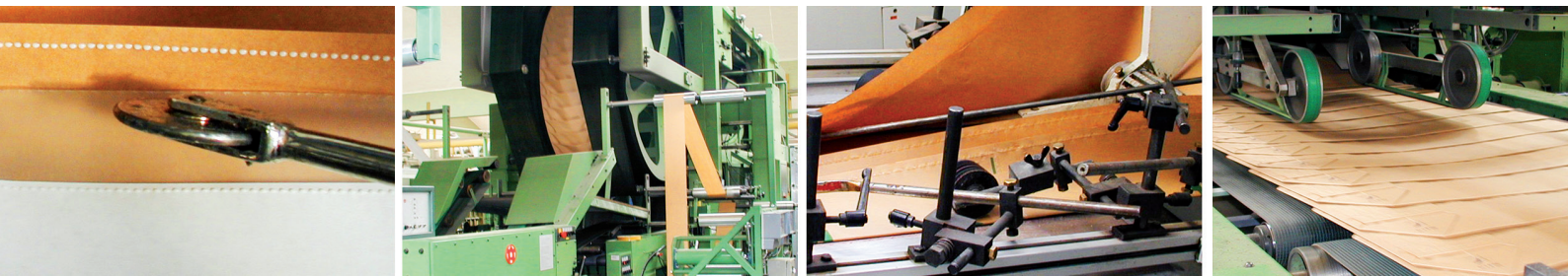
- potatoes
- maize
- and waxy maize

is the main business activity of AGRANA Starch.

AGRANA Starch division comprises four major sales channels:

- Food
- Non-Food
- Liquid Sweeteners
- Bioethanol

AGRANA Starch has a long and exceptionally successful track record in the development and marketing of modified starch products, under the brand name COLLABOND, for the paper bag production. The products are the result of longstanding and intensive research and development in close cooperation with the Research Division Starch / Zuckerforschung Tulln.



PRODUCTION & SERVICE

AGRANA Starch is produced at four starch processing facilities:

- Austria: Gmuend, Aschach
- Romania: Tandarei
- Hungary: Szabadegyhaza

The production in each plant is characterized by the highest technical level. Consequently, AGRANA Starch reacts instantly and with short notice to the different needs of our customers.

Striving for the best quality of AGRANA Starch products, the best possible customer satisfaction is THE top priority throughout the AGRANA group.

AGRANA's quality management system ensures the optimal and smooth process of the operating schedule combined with the highest quality assurance of our products.

The starch factories in Austria are certified according to ISO-Standard 9001 by Lloyd's Register Quality Assurance Ltd. since 1993.



AGRANA Starch's customer focus is characterized by extensive and competent advisory services which completes the COLLABOND portfolio offered by AGRANA such as

- individual technical advice
- customized products
- individual service
- clean and consistent quality
- short delivery time

COLLABOND products are in compliance with the rules of the Regulation (EC) No 1935/2004 and are approved according to the German Recommendation XXXVI.

APPLICATIONS

COLLABOND was especially developed for gluing paper bags with high-speed machines. The product is characterized by a high level of adhesiveness, stable viscosity and short-structured performance. This short-structured performance assures a low-splatter application. COLLABOND is also approved for the latest generation of machines with digital pasting.

DRYING TIME

COLLABOND exhibits fast efficient drying. COLLABOND type with higher solids content results in even faster drying. Three different COLLABOND types are available:

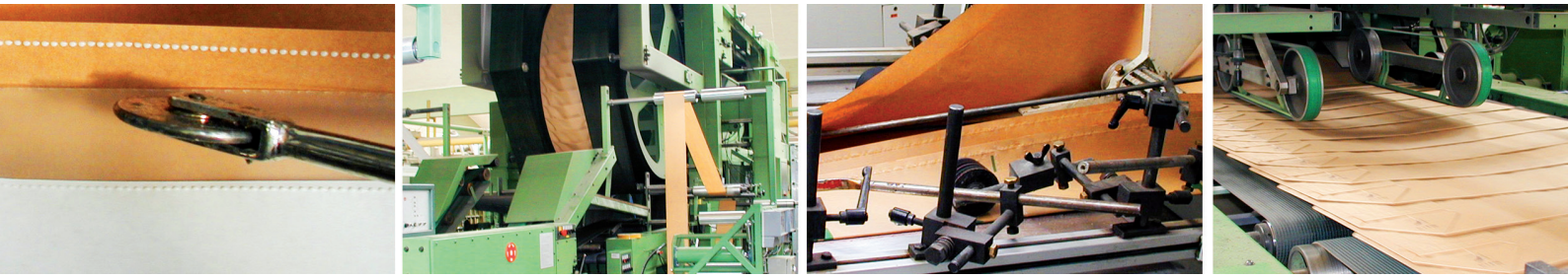
- COLLABOND 8017 IQ (1:5,0) ~17% solids content
- COLLABOND 8023 IQ (1:3,5) ~23% solids content
- COLLABOND 8025 IQ (1:3,0) ~25% solids content

PREPARATION

For the preparation of COLLABOND glue a mixer equipped with a dissolver disc is required. The COLLABOND fine-grained starch granules are completely dissolved. Depending on the type and speed of the agitator the glue needs 45 – 60 min to be ready for use. COLLABOND shows thixotropic behaviour during storage. For better flow ability the glue should be agitated slowly during storage.

CONSERVATION

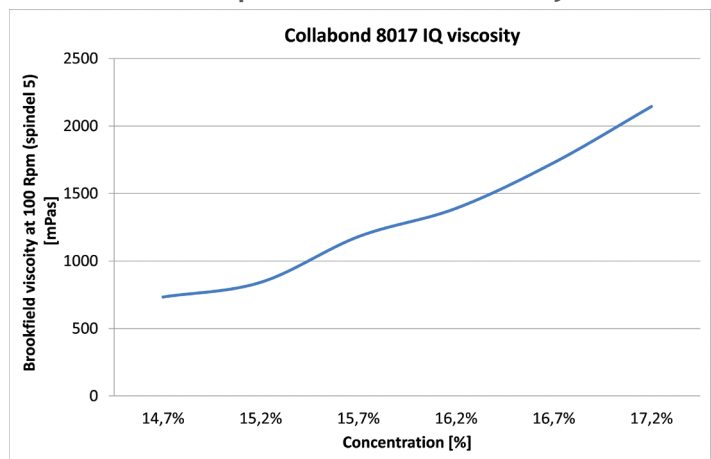
COLLABOND is pre-conserved. Nevertheless additional conservation is recommended, especially for tough conditions.



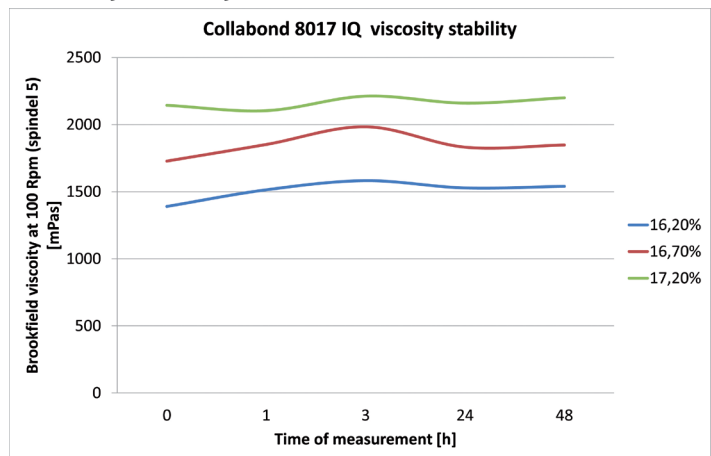
COLLABOND 8017 IQ

(1:5,0) TYPE, SOLID CONTENT ~17%

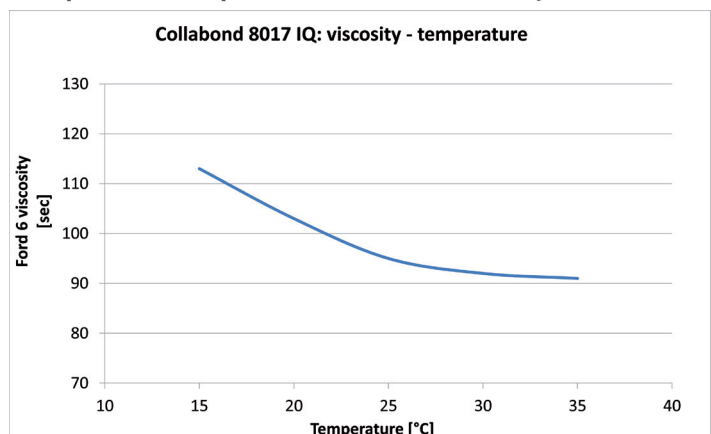
Concentration dependence of the viscosity:



Viscosity stability:



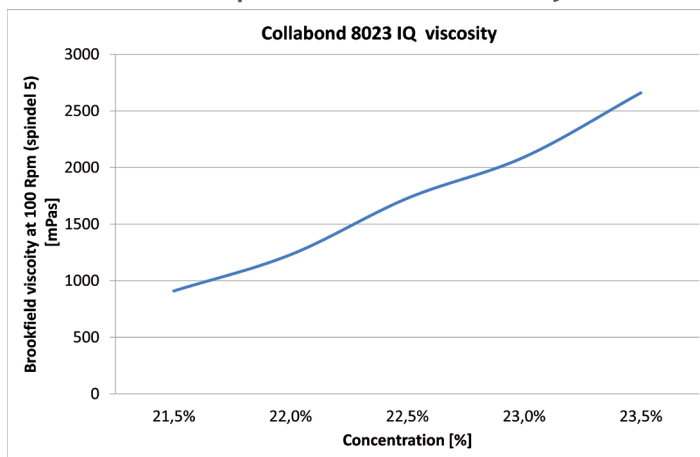
Temperature dependence of the viscosity:



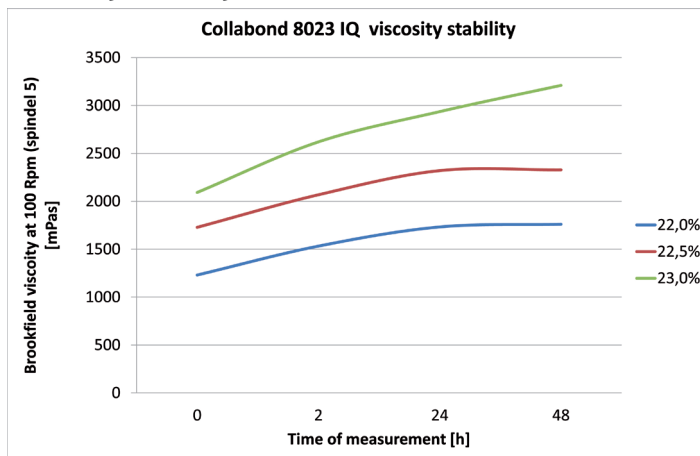
COLLABOND 8023 IQ

(1:3,5) TYPE, SOLID CONTENT ~23%

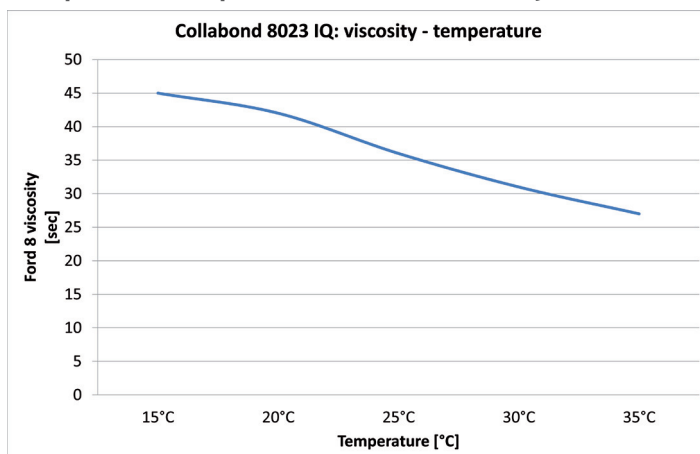
Concentration dependence of the viscosity:

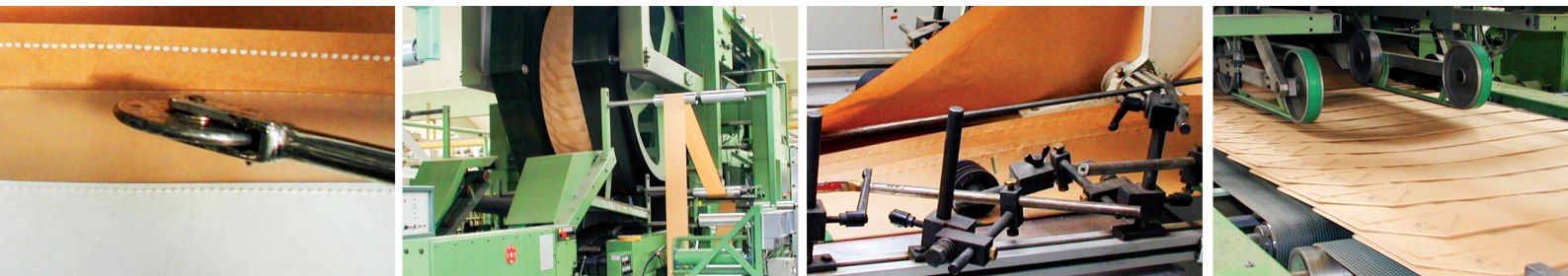


Viscosity stability:



Temperature dependence of the viscosity:

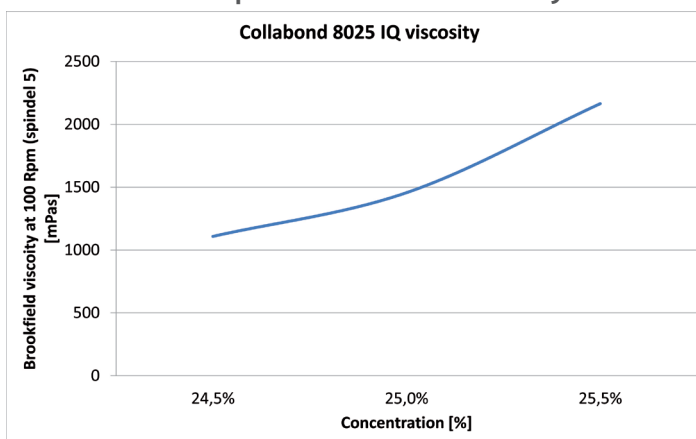




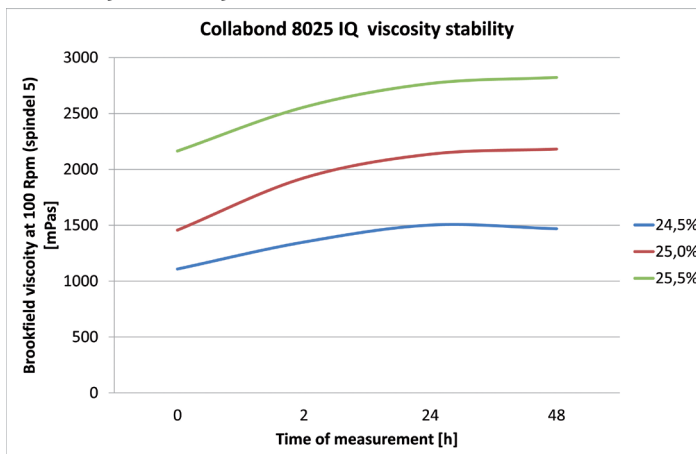
COLLABOND 8025 IQ

(1:3,0) TYPE, SOLID CONTENT ~25%

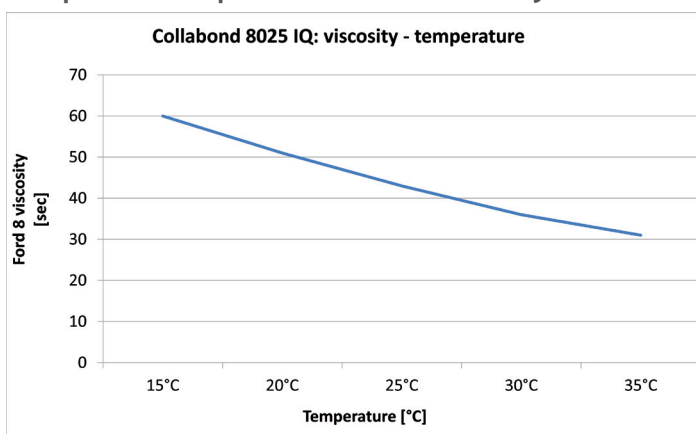
Concentration dependence of the viscosity:



Viscosity stability:



Temperature dependence of the viscosity:



AGRANA. THE NATURAL UPGRADE.

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This paper contains starch produced by AGRANA!