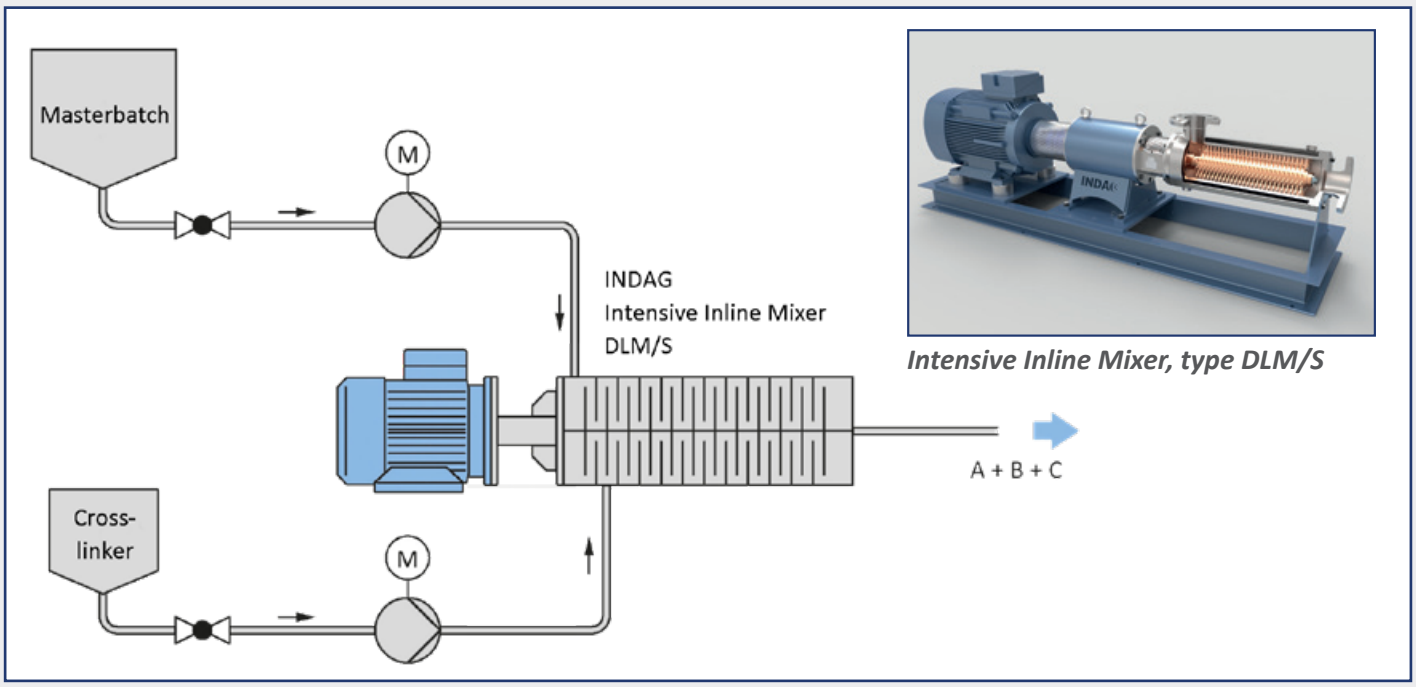
Case No. 504A
Adhesives with Crosslinker





Flow diagram example Mixing adhesive and crosslinker

Intensive Inline Mixer, type DLM/S

Process description

The adhesive base compound (Masterbatch) can be water-based or solvent-based. The explosion protection requirements for solvent-based adhesives must of course be observed. INDAG mixers are designed and built ATEX / XP compliant. Even during the production of the base compound, different substances can be continuously mixed homogeneously via INDAG mixers before the crosslinker is added.

The addition of the highly reactive crosslinker leads to a reaction in the adhesive base compound, which usually takes place very quickly. Here in particular, it is extremely important to ensure a good mixing result so that the crosslinker is distributed quickly and finely in the main stream.

Only if the crosslinker is mixed in quickly and homogeneously can overreactions, gel pockets or lumps in the mixture be prevented. With a good mixture, any filtration or separation steps that may be present are almost no longer needed.

Advantages

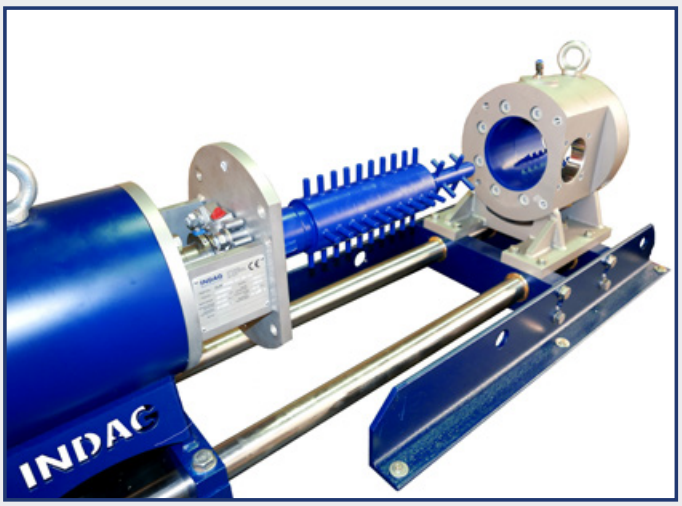
- **A quick and homogeneous mixing avoids overreactions, gel pockets or lumps in the mixture;**
- **No blocking, no clogging, no pressure loss;**
- **Very good self cleaning, CIP cleanable**
- **Mixing in a close system avoids introduction of air;**
- **Hygienic design according to our knowledge in sanitary food applications;**
- **Inner Teflon coating available;**
- **Other additives can be mixed in one and the same mixing head.**
- **Very flexible. Due to changeable rotational speed, our customer has direct influence on introduction of shear into product. This assures a wide range of throughputs and recipes in one mixer.**

Case No. 504A
Adhesives with Crosslinker

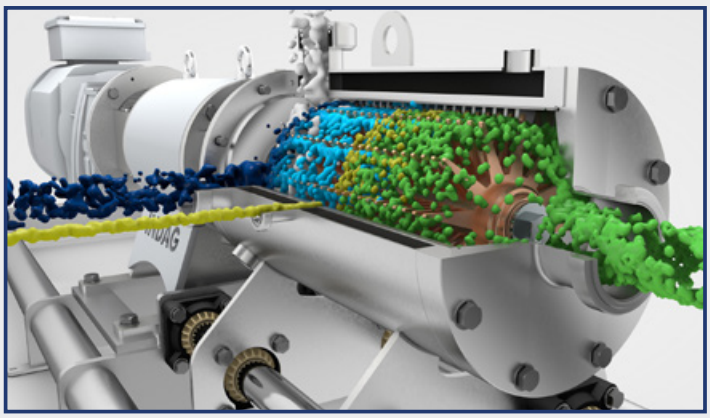


The metering of the reactive substances also has a decisive influence on the success of the mixing task. This takes place via special metering lances directly into the mixing zone.

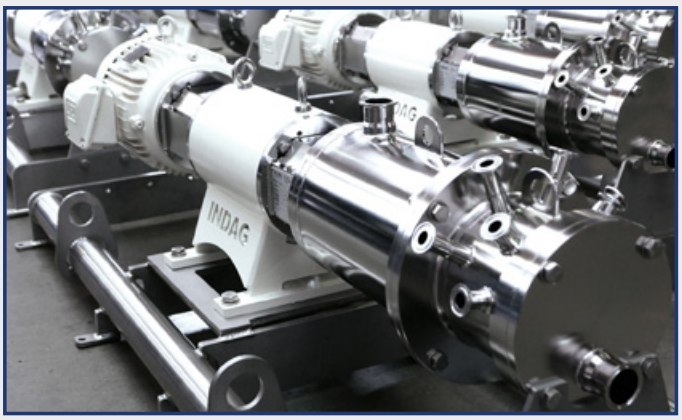
The INDAG Intensive Mixer, type DLM/S, generates a very uniform mixing of the products within a few seconds. In case of very sticky products INDAG has already coated the mixing zone completely with „Anti Adhesive“ Teflon on the product side. This coating is the maximum that can be done against product adhesion. As standard, the dynamic mixers in contact with the product are electropolished. Great importance was attached to the avoidance of dead space as well as to the compactness of the machines in order to refit them in already existing processes.



Teflon coating in mixing chamber



Mixing process in the DLM/S



Mixers with many inlets

Comparable applications with a similar processes and same mixer

- Polyuretanes with Crosslinker
- Silicones with Crosslinker
- Adhesive base compound with other components, such as Water, Solvents, Surfactant, Gas, Ammonia...

NORTH AMERICAN PROCESS, INC.
d/b/a INFINI-MIX Process Solutions
811 East Maple Avenue
Mora, MN 55051
(855) PROCESS (776-2377)
Sales@naprocess.com
www.WeMixStuff.com

INDAG
Maschinenbau GmbH
The FlowMix®-Company