

BONDSTAR® POLYVINYLAMINE

ACAT enriches the BondStar® series with a further innovative development of known technologies



Photo: Spiola

After the successful introduction of our dry strength agents based on GPAM (glyoxylated polyacrylamides) we add now two new products based on polyvinylamines (PVAm) to our portfolio of dry strength agents and additives to increase the efficiency. The products are:

BondStar® 206L und BondStar® 284L

Mainly on older types of paper machines like four-drinier machines, top wire formers or paper machines equipped with a dandy roll

they can increase the dry content and they can deliver an increase of speed of up to ten percent. This effect is mainly due to the formation of a fine flock structure which has a positive impact on the vacuum dewatering and on the dewatering behavior at the press section. In addition to the side effect of increasing strengths the efficiency of the paper machine can be improved by the reduction of web breaks.

With the application of the new products in fine papers it is possible to produce papers

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with higher fillers content without significant loss of strength.

With the following case study we want to discuss this advantages in more detail:

Case study: packaging paper machine:

Type of paper:

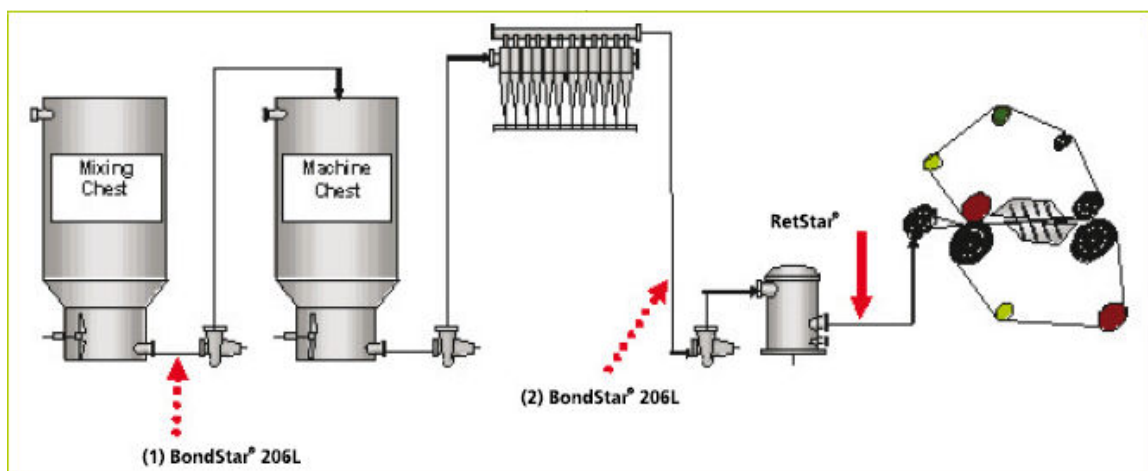
- Testliner 1-3

Paper machine:

- Top: top wire former, back: fourdrinier wire
- 170.000 t/a production
- speed 600 - 820 m/min
- 150 – 240 g/m²
- retention agent RetStar® 205P, 320 g/t

Dosing point and quantity:

- Test 1: Dosing between mixing and machine chest (high density pulp)
- Test 2: Dosing before the headbox pump (low consistency pulp)
- dosing quantity: 9,5 kg/t BondStar® 206L



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Results test 1:

- increase of paper machine speed 3%
- increase of SCT: plus 15%, burst pressure: plus 17%
- reduction of retention agent 30%
- reduction of vapour 2,5%
- reduction of breaks 37 %

Results test 2:

- increase of paper machine speed 7%
- increase of SCT : plus 8%, burst pressure: plus 12%
- reduction of retention agent 50%
- reduction of vapour 4%
- reduction of breaks 26%

Conclusion:

If the focus is on the improvement of strength, it is better to dose the agent at the high density area. If the focus is on an increase of speed, it is better to dose the agent near the head box.

To prove this in practice the staff members of the ACAT application technology department would be happy to introduce the advantages of this specific development of the already known polyvinyl technology to interested customers in laboratory and machine tests.