



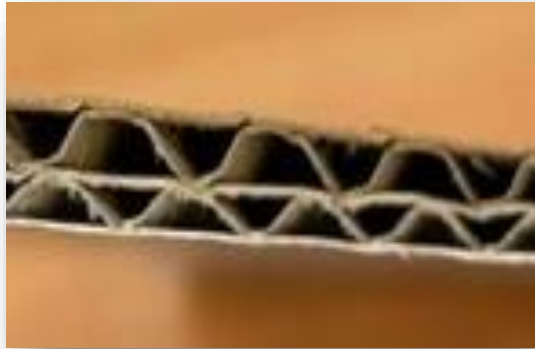
CP88-LVEX
**High Performance
Glue Additive**

Dor Group



CP88-LVEX

A blend of synthetic polymers specifically designed to produce early green tackiness and wet strength resistance.



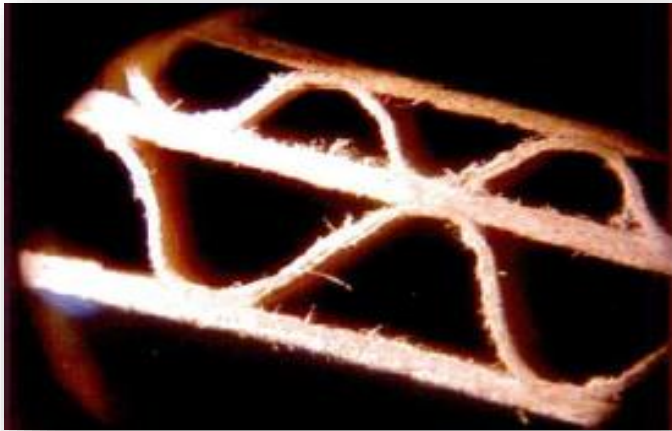
These synthetic polymers are film formers and possess a high concentration of polar chemical groups which cling to the cellulose of the board.

The strong bonds allow higher running speeds with less waste, and faster converting.

Corrugated Board

Corrugated board is a construction whose strength depends on its “ bonding points”

The strength depends on:



- Type of starch
- Glue formulation
- Temperature
- Paper quality
- Glue penetration
- Running speed

The bonding quality determines the final strength of the corrugated board.

Typical Corrugator Performance

- 90% of corrugated factories are not reaching their full production capacity
- Agricultural board grades are only produced at an average of 175 meters per minute, **when more is possible.**
- Standard board grades are produced at 240 meters per minute, **when more is possible.**
- Average waste without trim is around 3.5 %
- Average starch glue consumption is 8 to 9 gr/m² (C-flute)



CP88-LVEX improves Green Bond for Speed increase

**Reduction of
Glue amount**



Less Water

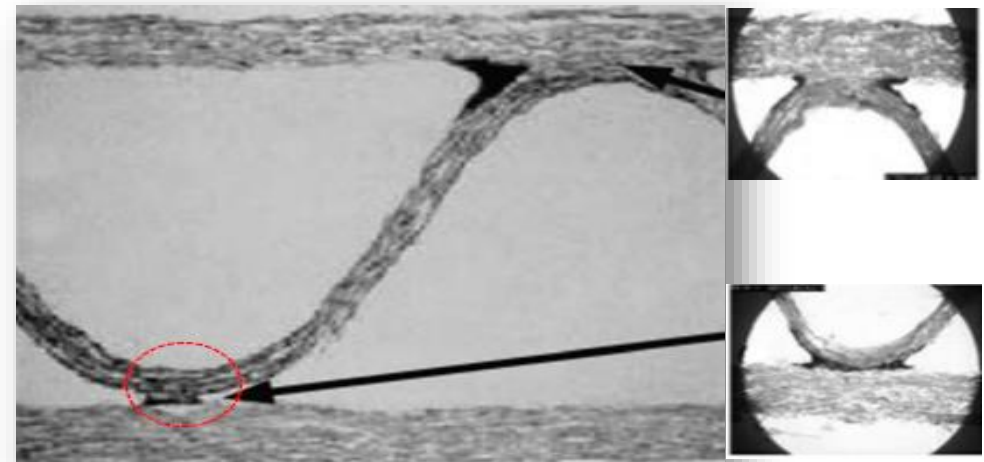


Increased Speed

In many cases machine speed is limited by insufficient glue tackiness (Green Bond)

High speed with insufficient glue tackiness causes side delamination at Slitter-Scorer.

Side delamination can be overcome by increasing the tackiness of the wet glue, leading to better bonding that will allow working with higher speeds.



Normal
Bond

Bond with
CP88-LVEX

Thus increased productivity and line efficiency reduces the total operational cost.

CP88-LVEX provides Water Resistance to Starch Glue

Water resistant corrugated board is required in a variety of industries when there is exposure to a wet or humid environment at any stage of handling from plant to consumer.

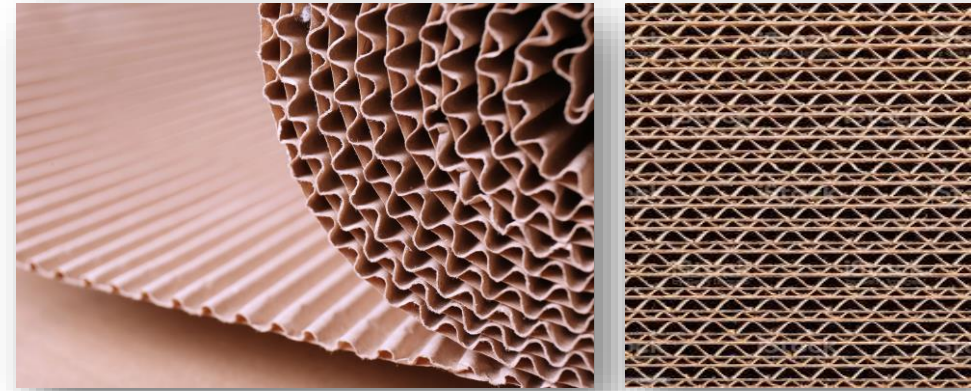
The level of required water resistance depends on the application of the cardboard.

- Foods and Beverages
- Frozen foods
- Tobacco
- High humidity areas
- Fruits and vegetables
- Flower packaging
- Hi-Tech consumer products
- Outdoor storage



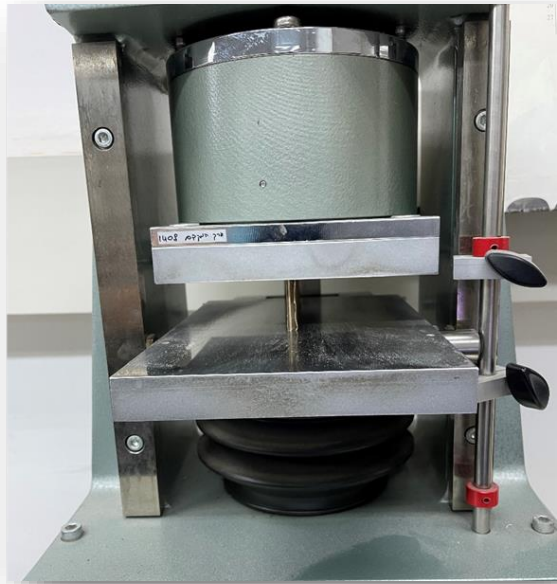
CP88-LVEX provides Water Resistance to Starch Glue

- Starch Glue is hygroscopic and weakens in a humid environment and the board loses its strength until total separation occurs.
- CP88-LVEX is a ketone aldehyde thermosetting resin . When added to the starch adhesive it provides Water Resistance. Water Resistance is achieved by crosslinking reaction between the starch and the resin when it is cured under heat. The curing and crosslinking process converts the starch adhesive and resin mixture into an infusible and insoluble 3D polymer network which is water resistant.
- Optimum water resistance results are achieved after 4 to 24 HR stocking period.



CP88-LVEX provides Mechanical Strength

- CP88-LVEX provides mechanical strength to the board
- It can improve ECT ,BCT results
- Potential for reduction of paper grammage



What CP88-LVEX can actually do?

- Reinforces the bonding properties of the glue giving more safety.
- Improves the bonding even at higher speeds with low penetration papers or bad glue fixing papers.
- Provides Water Resistance to Starch Glue.
- Improves board strength.
- Adjusting the drying parameters of all the corrugator to support the speed increase and quality to paper (humidity and porosity).
- Helps adjusting the gluing gaps to decrease starch glue consumption, along with energy consumption.
- Helps to reduce the waste at corrugator.
- Reduces stacking time before converting.

Case Studies where CP88-LVEX used

Case Study 1:

Corrugator with production capacity 100 000 000 m²

Average speed increased from 175 to 225 m/min

Waste without Trim reduced from 3.5 to 2.7 %

Starch Glue consumption reduction from 9.0 to 6.5 gr/m²

Case Study 2:

Corrugator with production capacity 100 000 000 m²

Average speed increased from 238 to 250 m/min

Waste without Trim reduced from 4.2 to 3.5 %

Starch Glue consumption reduction from 5.4 to 5.0 gr/m²

For more information:
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