



ADVANCED ADHESIVES REPORT

Your corrugating newsletter from Harper/Love Adhesives Corporation

The well-trained operator

Some things he really ought to know, and how to make sure he does

By Wayne Porell

To realize the business imperatives of efficiency and profitability, corrugators face daily the challenge of maximizing productivity, maintaining quality, and minimizing waste.

There is no magic, set-it-and-forget-it formula for success. We deal with a host of variables that change continuously. Today's fact is tomorrow's fiction. Today's answer is tomorrow's question.

About the only constant is the need for people who know what they are doing. Ideally, all your crews and crew members should be able to operate well and deal professionally with issues that arise with or without supervision.

Your best shot at making this happen is continuous training. Here is a short list of some things a well-trained operator knows:

Adhesive:

- Is the starch formulated to specifications, and why
- Why we run specified starch viscosity and gel temperature, and what happens when we don't
- How to check adhesive viscosity, temperature and gel point
- How to identify the cause of an out-of-spec batch of adhesive
- How to correct or compensate for a batch of adhesive that is out of spec
- Fully understand the mixing equipment and TVC system and be able to identify and respond to an equipment problem
- When waste water is used to formulate the adhesive, be able to troubleshoot issues caused by the water
- How to run water-resistant adhesive and produce the best water resist board with the current adhesive formula
- Why we run a particular starch setting
- Why starch cannot be used to control warp

Paper:

- Why we add wrap to a preheater, and how much is enough
- Proper paper temperatures and how to control them
- Why liners cannot be overheated and how to know when they are
- Why liners are run on wire or felt side
- How to run preprinted liners
- The proper loading pressure for different widths of paper

Corrugator:

- How to hang rolls of paper safely and efficiently
- Proper operating procedure for splicers to reduce tail waste
- The best way to control each type of warp
- How to operate his machine station safely
- How to perform a visual check of board and test board quality
- How to identify bonding problems and how to solve them
- How to read and interpret soak samples and make adjustments accordingly

Corrugating companies deal with training with more or less formality, depending on their needs and resources. TAPPI, of course, has available to its members a deep reservoir of technical information. Another valuable resource available to all is the technical knowledge and assistance of industry suppliers. Nobody knows their products better than the people who make them. Paper suppliers, adhesive suppliers, and equipment manufacturers are all eager to help you succeed with their products.

From our beginning, Harper/Love Adhesives has striven to provide a technical resource for the corrugating industry. With combined experience totaling more than 600 years, our field staff has solved just about any problem you're likely to encounter, and is eager to help. ■

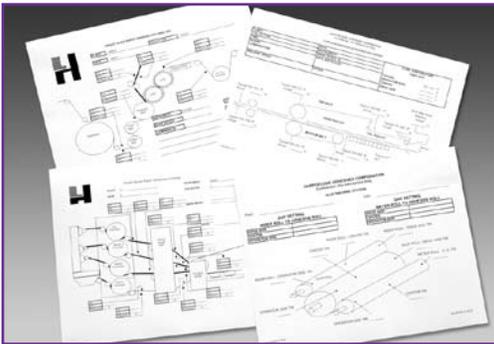
M.E.T. — a formal program for corrugating success

by John Kohl

Harper/Love Adhesives Corporation was founded almost 30 years ago with the idea that the corrugated industry needed a leader, not only in adhesives, but in all aspects of support to a corrugated box plant. With this as our goal we have become the industry leader as an information resource with our extensive library, and also as a provider of technical service and training support. We currently have the largest field support staff in the industry with forty people in sales and technical service dedicated to helping box plants with problem solving, continuous process improvement, and training.

Our in-house library contains a vast amount of information and specifications on all types of starch mixing equipment, storage tanks, pumps, and silos in use today. It also contains information on most corrugating equipment, steam systems, waste water use, paper and board testing information, and various crew training videos.

Ten years ago Harper/Love organized all this knowledge and information into a formalized package we call the MET program. MET stands for "Management Extension Team." It is a program where we work with the plant management and crews to establish a continuous improvement process for all aspects of the corrugator. This includes both training and documentation for the starch adhesive and all the corrugator operations.



To establish a base line of current machine conditions, product quality, and to set goals for improvement, the Harper/Love Team audits the entire corrugator process.

This comprehensive audit includes:

- Complete equipment survey
- Current adhesive formulation evaluation
- Current adhesive mixing equipment evaluation
- Adhesive storage and transfer equipment
- Adhesive application equipment (glue rolls, metering rolls, rider rolls, contact bars)
- Corrugator heat assessment on all vessels
- Corrugating roll wear
- Bearing wear
- Splicer evaluation
- Level of corrugator crews skill and knowledge

Based on the information collected during the audit, areas for improvement, potential savings, and crew training needs are assessed and goals set. These goals are

What's happening?

What do we want to happen?

How do we make it happen?

a team effort and agreed upon by both the crew and plant management.

With the MET program in place the Harper/Love team sets up monitoring for a wide range of corrugator and adhesive data points. Some of these points are;

- Board quality
- Warp and warp control
- Board testing
- Board wet strength testing
- Paper testing
- Paper temperatures
- Adhesive testing and charting
- Raw materials testing
- Adhesive consumption
- Waste identification and ways to control, reduce, and eliminate it
- Training programs needed for the operators
- Service program and frequency needed

The net result of the initial audit and base-line monitoring is total cost reduction for the corrugating process by correcting or improving the processes and improving board quality. The more effort put into improving quality and efficiency, the higher the return to the plant.

As the program progresses we reevaluate periodically with the plant management what is being done and repeat the improvement process.

As each goal for improvement is reached in an area, the team sets a new goal that is realistically obtainable. With the crews, management, and the supplier involved, there is a constant exchange of ideas and information that help a plant improve quality and efficiency while reducing overall costs.

The effort that the Harper/Love technical representatives put into each box plant that wants the value-added benefit of the MET program is tremendous. It is why Harper/Love has become the corrugated industry leader in not only water-resistant products and performance products, but in training and service, as well.

With this much emphasis—by all members of the team—on the many variables that affect the total cost and quality of the finished box, there is a higher degree of success for the plant involved. It truly becomes a clear win-win proposition for any box plant. ■

Training is a priority for Northeast sales-tech tag team

Two corrugating pros keep customers happy in eleven-state area

Between them, Sales Rep Phil Smith and Tech Rep Wayne Porell have over a half century of corrugating experience. Their customers have learned to rely on that experience and expertise not only to keep their starch kitchen and related systems in order, but also for training and troubleshooting throughout the corrugating operation.

“Harper/Love is very helpful,” says Joe Pagani, production manager for Accurate Box in Paterson, New Jersey. “They spend time with our people and help us know what to watch for—whether it’s what makes a good sheet, why problems occur, what the technical parameters are to get a good result.”



Lisa Hirsh, president of Accurate Box Company, reviews reports with Phil Smith. Accurate Box specializes in litho-laminated packaging.

“What we’re all after,” says Phil, “is to produce consistently a firm, flat, dry sheet. There are a lot of variables that go into that and we try to watch them all.”

Training is both formal and informal. Wayne has developed a series of seminars on starch, roll stock, the double backer, the single facer, the slitter, the downstacker, and supervision. These are presented classroom style. Says Wayne, “Whatever the subject, I try to present to the whole crew, so everybody has the same information.” Wayne and Phil also spend time as needed one-on-one at the machine, helping with troubleshooting or specific technical questions.

Wayne says he and Phil each try to visit each customer at least once a month. “How much training is needed depends on the plant, the issues they face, and how much turnover they experience.”

Even in a plant that enjoys a relatively stable work force, training is ongoing. “We’re big on cross training,” says Accurate Box’s Joe Pagani. “We rotate our guys so they can work



Wayne Porell with Gene Snyder, vice president and plant manager for Tim Bar, Oxford Division, in New Oxford, Pennsylvania.

anywhere on the line. That way we can cover a long vacation or other absence without worry.”

Gene Snyder, vice president and plant manager for Tim Bar, Oxford Division in New Oxford, Pennsylvania, gives Harper/Love



Wayne Porell in classroom and checking a sheet with Danny Miller, corrugating supervisor for Tim Bar, Oxford Division.

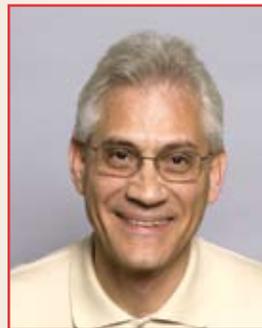


high marks for technical support and training. “They do formal training for us at least once a year, and in their regular visits, they keep an eye on our systems and make sure they’re operating as they ought to. Just because a system is automated doesn’t mean it’s working right; Harper/Love helps us keep an eye on things.”

Mr. Snyder says he also knows he can rely on Phil and Wayne to respond quickly to technical problems that might arise, and to stay up to date on industry developments. “We know they will pass along technical know-how they pick up in their work experience and steer us in the right direction,” he said.

Harper/Love help goes beyond just technical issues, Phil says. “For example, because of Wayne’s experience, he is a good coach for new foremen who have never been in a position of management. It’s a new environment for them and it can be difficult. Wayne’s been there and can give these guys good, practical advice.”

Phil and Wayne serve Harper/Love customers in Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. ■



Phil Smith lives in Delran, New Jersey. He joined Harper/Love 15 years ago.



Wayne Porell lives in Chambersburg, Pennsylvania. He has been with Harper/Love 8 years.

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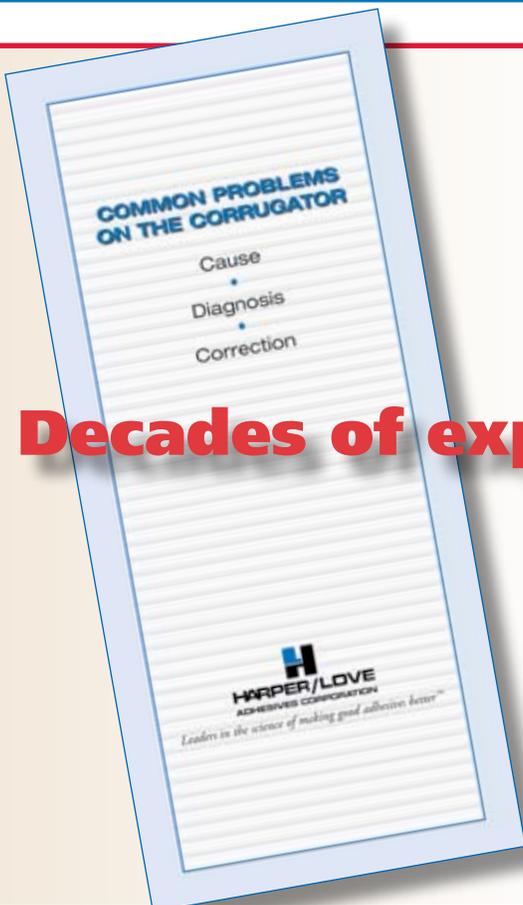
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800-438-3066 • www.harperlove.com
 e-mail: salestech@harperlove.com

11101 Westlake Drive
 P.O. Box 410408
 Charlotte, NC 28241-0408

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 of making
 good adhesives better™



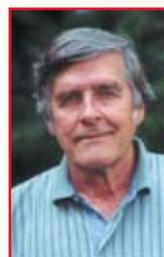
Common problems on the corrugator: the book

This handy 16-page pocket guide by Chris Polster and Bill Nikkel addresses directional fiber pull, and seven delamination issues, including flutters, cold spots, light-test blisters, no-starch blisters, and more. Ask your Harper/Love rep for your copy.

Decades of experience in your pocket!



Chris Polster



Bill Nikkel

Between them, Chris and Bill have over 75 years of experience in all aspects of corrugating operations. Add the wisdom in this booklet to your personal know-how.