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TAPPI

Procedure for setting up a raw material trial on the corrugator

Scope

This assignment is to establish procedures to properly conduct a raw material trial on the corrugator. Every effort must be made to standardize the trial procedure in order to eliminate variables, which will cloud the results of

the evaluation. The performance characteristics, along with a battery of designated laboratory tests on selected

combined board trial samples, should yield a clear-cut decision on the runnability and desirability of the material

being evaluated.

Safety precautions

Observe all corrugator safety rules.

Content

The primary consideration during the trial is the complete removal of outside influences. In order to standardize the numerous aspects of a trial, a list of measurable factors should be compiled. Secondly, all controllable factors should be held constant during the trial sequence.

It is vitally important that the trial be well planned, coordinated, and properly documented. During the planning phase, the assigned evaluation team should brief plant management and the corrugator crew. This briefing

should include the reason for the trial, the run sequence, desired run speeds, sampling requirements, and documentation of machine operating conditions. This detailed briefing should be scheduled a minimum of one day

prior to the intended trial date.

The pretrial day should set aside sufficient time to complete assigned checks on the corrugator, steam system,

corrugating adhesives, and isolation of the raw materials to be used in the trial. The mechanical checks on the

corrugator should include parallelism check of all gaps. The steam system should include a two position check (top

and bottom) of all heated vessels to check for proper siphon placement and steam trap operations. Adhesive checks

should include viscosity (Stein-Hall), pan temperatures (three positions), gelatinization temperature, and level of

percent solids. All discrepancies noted should be brought to the attention of plant management and corrected prior

to the pending trial. The trial rolls of liner and medium should be set aside in a designated holding area. The roll

numbers should be recorded and the rolls identified with suitable markings for trial use. The rolls are selected so

that they are sequentially cut and be from the same reel position. This will help eliminate paper properties as a

variable. All pretrial testing should have been completed on representative samples collected from the roll stock

prior to the beginning of the main trial. This procedure should identify any paper properties, which might be

considered as unwanted variables within the scope of the trial.

The evaluation team should monitor the following conditions and record their findings as follows: