Handling An Adhesion Complaint On Gummed Tape

by
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WHEN INVESTIGATING AN ADHESION COMPLAINT C

Dispense the tape — turn it over and visually examine the gummed surface.

1. It should be evenly wet.

2. Rub your thumb in the glue. It should feel oily, not watery or sticky. You should be able to move the glue surface with your thumb.

   A. If the tape feels wet or watery, the tape is over wet and will retard the quick tack of the tape. This will evidence itself in tenting (see drawing A on back page). In the event you have a slow taping operation due to the box being very large or the tape dispenser not being close to the box being sealed, over wetting can compensate for these circumstances. An over wet tape may require more rubbing than normal. However, an over wet tape will not pop off the box if it is applied while the glue is in a fluid state.

   B. If when you turn the tape over and examine it and the glue is not oily but sticky (like pressure sensitive tape) the glue cannot flow into the pores of the box and when the tape dries, it will have only a superficial bond and will pop off the box (see drawing B on back page). This creates an insidious problem as the box appears to be securely sealed and it isn't.

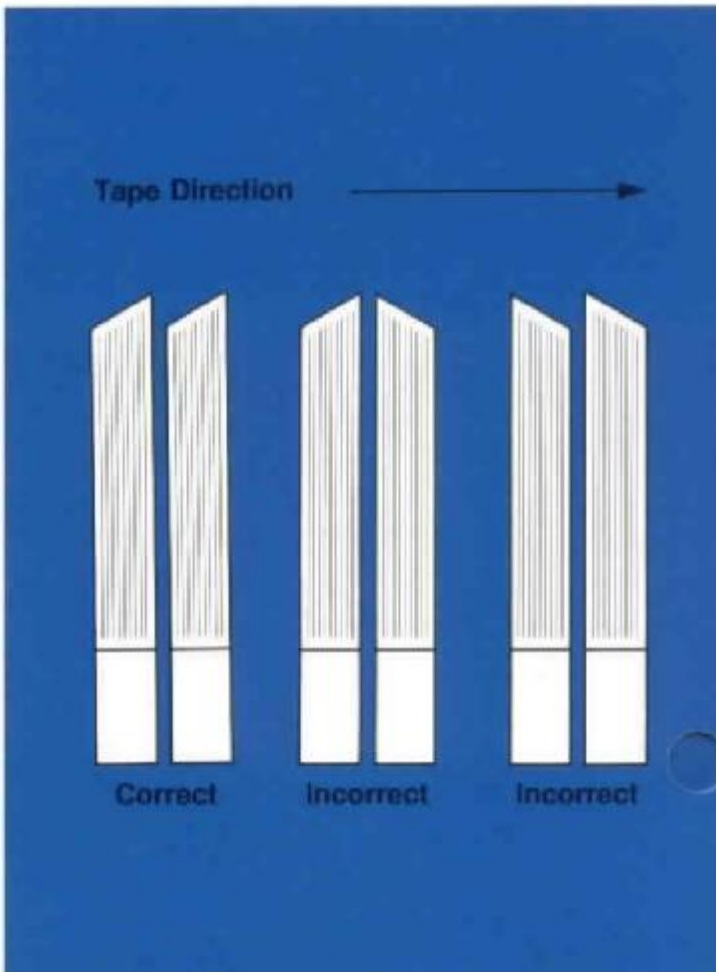
   C. When the glue feels oily when it is applied, you will get a seal that will never let go. It welds itself to the box.

Listed below are things to look for in handling a complaint.

1. No water bottle — the operator refills the water trough whenever the water level looks low to him. This creates a situation where the tape can be over wet when he fills the trough to the top. As the water level goes down the moistening will be correct and then you go into an under moistening mode until the tank is refilled. A water bottle is a ***must***; it is the only way the amount of water being fed onto the tape is uniform. Don't allow anyone to convince you the bottle is unnecessary.

   Adjust the height of the water bottle to create the ***oily*** tape. The higher the bottle, the more water is applied. The converse is also true.

2. Dirty brushes inhibit capillarity. Brushes must be cleaned in accordance with the amount of use the dispenser is put to. As the glue rides over the brushes, some of it is deposited on the brushes and this is the primary source of the problem. The other culprit is paper dust. Brushes should be washed with soap and warm water then thoroughly rinsed. It is imperative that the brushes be put back in the ***proper direction.*** If they are worn, they should be discarded. Never use a new and a worn brush together. Their height should always match. If one brush is taller than the other, you effectively have only one brush. You should always use the proper number of brushes. For reinforced tape, a minimum of two is required. Some machines use three.



GUMMED TAPE, USE THIS HANDY CHECKLIST

3. Never use any additives in the water. These wetting agents do not work.

4. The tape dispenser should be level, never tilted.

5. If the cutting knife hangs up, it probably needs cleaning or adjusting.

6. If the tape does not feed through the dispenser and is jamming, the pressure plate may be too heavy and needs to be moved back toward the roll of tape to lessen the pressure.

7. You should not need a heater. If, however, the tape is being applied in a particularly cold or drafty area, you may use one but do not allow the temperature to exceed 100°F. Too much heat shortens the open time of the tape and will create a situation where the tape will get to the box in an undermoistened state.

If none of the above solves the problem

1. Check cartons for uneven surface (the flutes are too prominent).

2. The linerboard is too soft and porous. This creates an adhesion problem.

3. Check if the linerboard has been treated with a water resistant coating.

4. Check if tape is applied to a surface that has been printed with oil ink.

5. Check if cartons are dusty, dirty, or reused.

6. Is the box supplier a new source?

Observe actual application of tape

1. Consider length of time between moistening and applying the tape.

2. In dispensing very long strips of tape, be certain last half of tape is being adequately moistened.

3. Operator should thoroughly rub tape with palms not fingers. Gummed tape will not stick unless it has been applied with firm pressure.

4. If the tape is being applied where it is too cold, the glue and water can freeze. (A heater will help here.)

5. If the tape is being applied in windy or drafty areas, it will tend to dry out too quickly.

6. Cold cartons can resist proper adherence.

7. Tape should never be stored near heating pipes or radiators or in frigid conditions.

8. In all the above fails, clean brushes and begin again. The glue residue on the brushes may be from a competitors tape that is incompatible with ours.

If none of the above solves the problem, call our customer service department at 800-441-7525. If they are unable to help you, they will ask you to send a roll with its lot number to:

the crowell corporation
P.O. Box 3227
Newport, DE 19804
Attn: Sales Service Department

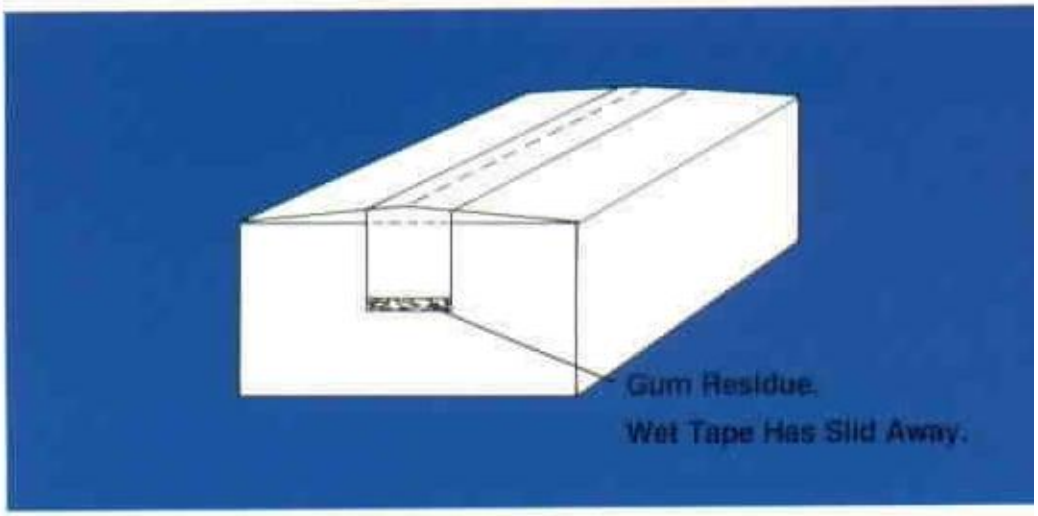
Please state the nature of the problem and we will analyze the tape and get right back to you, or we will send a technician to your plant for a service call.

TWO APPLICATION PROBLEMS WITH GUMMED SEALING TAPE

A

Over Wet — Springy Box

Good bond, but springy box causes tenting.

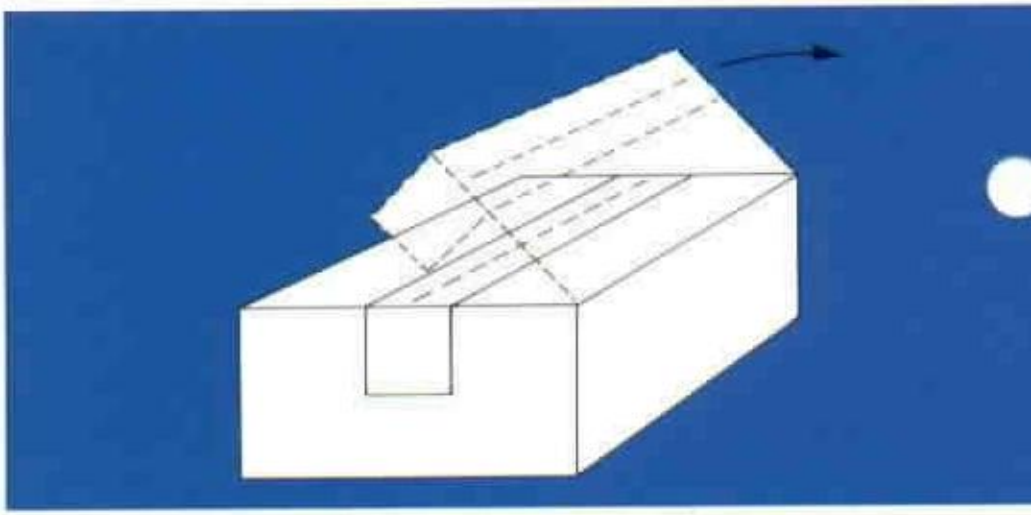


B

Under Wet

The bond superficially appears good.

Failure will result, because gumming has not entered the pores of the linerboard.



C

Properly Applied Tape