



March 6, 2001

Mr. Joe Smith
ABC Company
7990 Auburn Rd.
Concord Township, OH 44077



Subject: PadPak[®] Package Design for Automotive Radiator

Dear Mr. Smith:

We designed a PadPak[®] package for a large automotive radiator provided by your company. In addition, we also conducted an ISTA drop test on this PadPak[®] package design. Following are detailed descriptions of the PadPak[®] design, test procedure and results.

PadPak[®] Package Design for Large Automotive Radiator:

1. We used an FOL – 200 lb. test, double wall corrugated box with inside dimensions of 50" x 8" x 28".
2. Produced two (2) – 96 inch pads. Formed each pad into a coil and placed them in the bottom corners of the box as shown.



3. Placed the radiator on top of the coiled pads and pushed downward to nest it into the coils as shown.



- Produced two (2) – 96 inch pads. Coiled each pad and placed one coil down and around each end of the radiator as shown.



- Produced two (2) – 96 inch pads. Coiled each pad and placed them over the top corners of the radiator.



- Closed the flaps and sealed the box with pressure sensitive tape.
- Total PadPak[®] used in this package design was **48 linear feet**.

ISTA Drop Test Procedure:

We conducted the drop test on the packaged radiator in accordance with ISTA Integrity Test Procedure #1A. The drop test procedure consisted of subjecting the package to one corner drop, three edge drops and six flat drops (one on each face) for a total of 10 drops. The weight of the packed radiator was 35.2 pounds. Therefore, all drops were made from a height of 24 inches.

ISTA Drop Test Results:

After completion of the tenth and final drop on the package, the radiator was unpacked and inspected for damage. I am happy to report that no physical damage of any type was noticed on the radiator. Therefore, this PadPak[®] package design successfully passed the ISTA drop test procedure.

Summary & Comments:

The PadPak[®] materials used in this design was 3 ply - 30/50/30. This material has excellent cushioning properties and would make a great packaging material for your automotive radiators.

Thank you for the opportunity to work on this project. If you have any questions please feel free to contact me at (800) 726-7257, ext. 8124 or by e-mail at sbaiers@ranpak.com.

Sincerely,

A handwritten signature in black ink that reads "Shawn M. Baiers". The signature is written in a cursive style with a large, prominent initial 'S'.

Shawn M. Baiers, CPP
Packaging Engineer