



**To:**  
**Cc:** BC,BJ,OC,KV Ranpak  
**From:** Erwin Methorst  
**Date:** 17 May 2005  
**Ref:** Pboul 05/

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## PadPak® Package Designs for Glass plate

Dear

A PadPak® package design was made for a glass plate that is used in heaters. In this report you will find a step by step pack instruction how the product was packed in PadPak®. In addition we performed the UPS drop test procedure.



### PadPak® Package Design for glass plate

Used a FEFCO 0203 double corrugated (Full overlap) with the following inside dimensions: 620 x 120 x 370mm.

1. Produced two 0,7 m pads and coiled them to spirals. Placed the spirals at the bottom of the box.



2. The glass plate was placed centered on the spirals. Push the plate slightly in the pads.





3. Produced two other 0,7m pads and placed them on the top corners of the plate. Make sure that the spiral form themselves nicely around the glass plate. The box is now ready to be closed.



The total amount of PadPak<sup>®</sup> that was used in this design is 2,8 m.



## Drop testing

The glass plate was drop tested according to the UPS drop test procedure. The plate was given 10 drops:

- 1 corner drop
- 3 drops on different edges
- 6 flat drops on all faces of the box

The plate was dropped from a 80cm drop height. This is typical for products with a weight between 0-10kg.

After the 10 drops the box was opened and the product was examined for any damages. We are happy to confirm that the package past the UPS drop test procedure without any problems.



## Summary / Comment

To pack your products we used 2-ply 70/70 PadPak®-paper. This quality provides excellent cushioning and fixation to the glass plate.

The PadPak® package will make sure that the time to pack a product will be reduced significantly. The current design exists of two different packaging materials:

- Corrugated wrapping
- Novus airbag material

The corrugated wrapping is cut by hand to the right size, wrapped around the product and then stapled to keep it together. In addition a lot of Novus material is used to fill up the rest of the box. The current way of packing is very labor intensive.

Please note that the way of packing with PadPak® is very flexible. Using spirals with a different density, many different glass plate sizes can be packed in one box size.

Thank you for the opportunity to visit your company and work on this project.

Sincerely,

Ing. Erwin Methorst  
*Manager Packaging Engineering*

**Attached:** - *A copy of the UPS drop test procedure*

### **Proprietary information**

This information is the property of Ranpak. All information contained herein is confidential and proprietary and is not to be disclosed to others and/or used without the written permission of Ranpak.

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