

Signage – PMMA panel lamination



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Agenda

- Background
- Application Description
 - Roller Laminator
 - Flatbed Laminator
 - Hints & Further steps

- Argumentation
- Offering & Next steps

Background

- The combination of two different (colored) PMMA is very common in the Signage industry
- Target is to create “nice” looking signs
 - Light effects by light coming out of the side of the columns

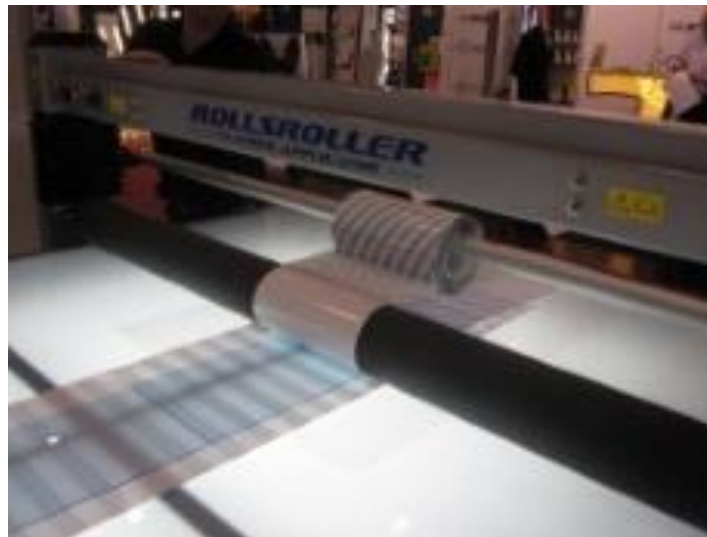


Application Description

- First step is the combination of two PMMA panels
 - Size vary by customer → It could be large e. g. 1m x 3m
 - Usually a thick (up to 30mm) transparent or translucent PMMA is combined with a thinner (2-3mm) colored one
- Today customers are using liquid glue like Acrifix (Evonik Brand) with many disadvantages like:
 - Very expensive → up to 100€/liter
 - Shot pot live
 - Hazardous
 - 24h drying time
 - Squeezes out = Intensive cleaning required
- Second step is the cutting of the columns

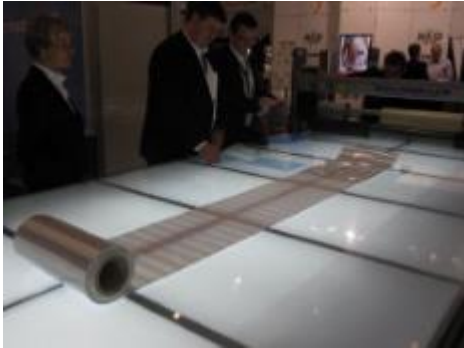
Flatbed Laminator

- The preferred solution as the PMMA “doesn’t move”
- Lamination of very thick PMMA feasible (up to 80mm sandwich thickness)
- Tested & Proven on Rolls Roller (Swedish company) <http://www.reklamide.se/rollsroller/en>
 - Originally developed for the lamination of foils → Therefore not uncommon in the signage industry



Flatbed Laminator – Steps

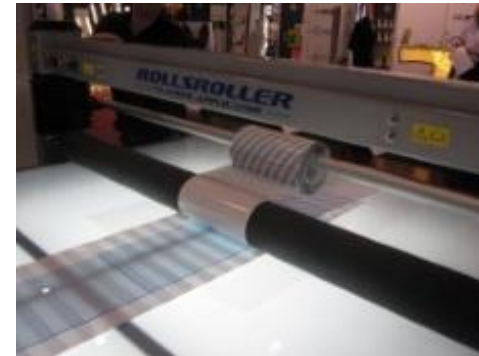
Easy part



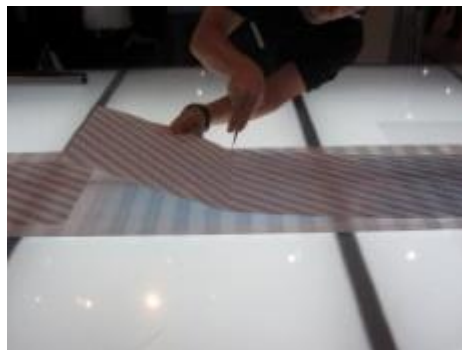
Cover the laminator with e. g. liner material



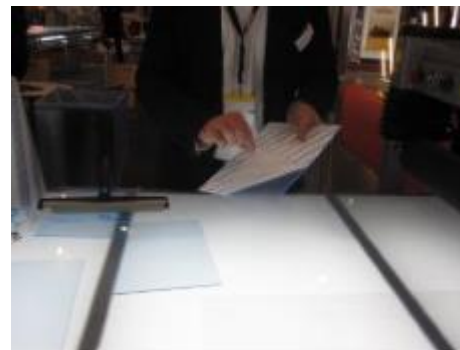
Clean the PMMA by a silicon roller



Lamination of tesa 7054 to the PMMA



Separation of the laminated PMMA sheets

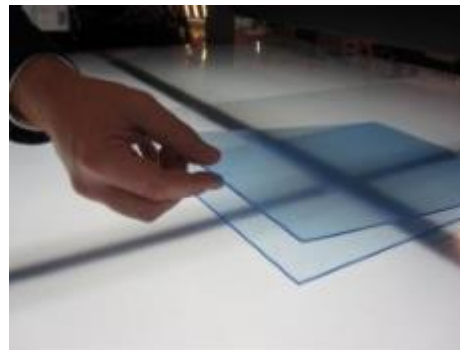


Remove the Liner

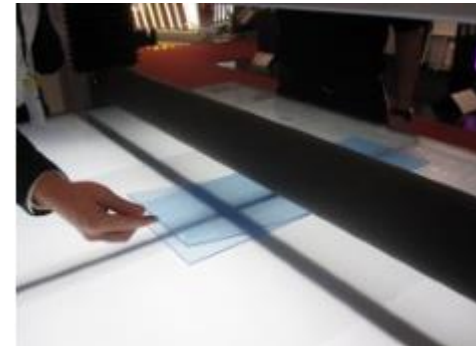
Flatbed Laminator – Steps Tricky part



Adjust the PMMA panels

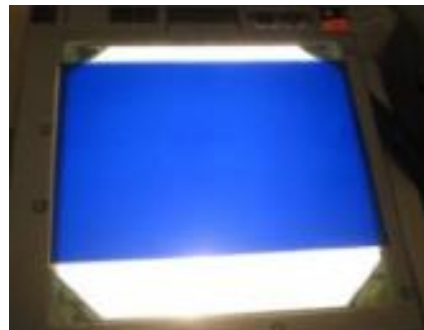


Always keep a gap between the plates



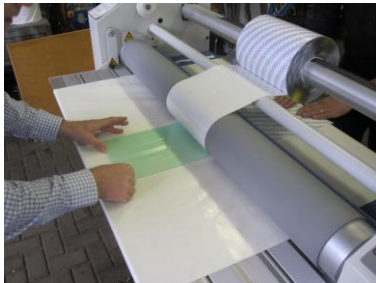
Laminate the second plate
BE CAREFULL WITH YOUR FINGERS

- By doing it the right way a sandwich w/o any bubbles will be achieved
- Usage of a very small amount of water might be helpful (applied with an atomizer)



Roller Laminator

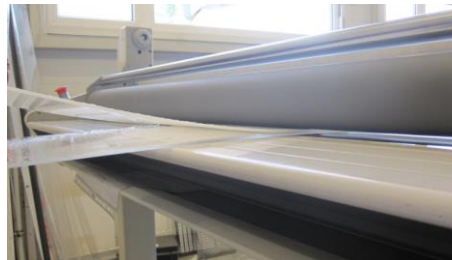
- Very similar, however more tricky as the substrates are moving



First plate = Lamination of the tape



Lamination of the second PMMA panel



Keep the gap

Hints & Further steps

- If different thickness of PMMA are used, always laminate the thicker one first
- Always leave the protection foil on the PMMA as long as possible
- tesa 7054 PV22 (paper liner) seems to be the best offer for this application

- For cutting the columns either a laser or a rotary cutter is used
 - The edges of the columns are not sticky by using tesa 7054 (500µm) in combination with a rotary cutter
 - By using a laser best results are achieved, if the laser comes through the thicker PMMA panel. Light deposits of sticky material will occur at the edge of the PMMA panel behind the laser

Argumentation

- Replacing the liquid glue by tape is
 - Much faster as there is no drying time (most convincing argument)
 - Cleaner, safer, more reliable ...
 - Overall process shouldn't be more expensive (at least)

Offering & Next steps

- As we are talking about craftsmanship, the customer needs to try it
 - NART for 25m x 250mm material (STOCK ITEM!) = 7054-14-22
 - Don't use this article for free sampling 6,25m² = Target price of 300€/pcs
 - Try to sell it on a reasonable price level
 - Wider material (up to 620mm) is available as non stock item 7054-101-22

