Background

During manufacture of Melinex® CORE PETF the film is stretched in both machine and transverse directions in order to give the product its exceptional strength and durability.

This generates a slight variation in orientation across the web which, if unchecked, can cause cross-corner curl in card production when more than one layer of PETF is included in the laminate. DuPont Teijin Films expertise has provided a solution to ensure that this is not an issue; the film is provided as matched sheets with simple instructions for use.

If there is only one layer of PETF in the laminate, sheet matching is not required.

Sheet Numbering

Each sheet has printing along one edge – see example below

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Melinex® CORE1 152MIC 2.03.D52.2221/1440  C3 MATCH WITH C6  VVV FEED PRINTER VVV
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The numbering gives traceability back to the DTF manufacturing process and instructions for sheet matching and printing:

- Melinex® CORE1 152MIC  Film grade and thickness
- 2.03.D52.2221  Master reel from which the material was sheeted
- 1440  Indicates this is sheet 1440 from master reel in question
- C3  Sheet position
- MATCH WITH C6  Sheet with which it should be matched
- VVV FEED PRINTER VVV  Printing orientation (see below)

Sheet Matching

The face and reverse sheets must be matched as indicated:

- A1 matches with A8
- B2 matches with B7
- C3 matches with C6
- D4 matches with D5
- G5 matches with G6
- H7 matches with H8
- K3 matches with K4
**Printing and Lamination**

A1, B2, C3, D4, G5, H7 and K3 sheets should be printed with the front design of the card, the sheets should be fed into the printer in the direction of the arrows.

A8, B7, C6, D5, G6, H8 and G4 sheets should be printed with the reverse side of the card, the sheets should be fed into the printer in the direction of the arrows.

Sheets should be printed on the side with the ink-jet labelling. Prior to lamination the sheets should be collated with the inkjet printing along the same edge of the laminate and with the printed sides facing towards the outside of the card structure.

The arrows indicating the direction in which the sheet should be fed into the printer varies depending on whether the inkjet printing is on the long or short side of the sheet:

- Long side: VVV FEED PRINTER VVV
- Short side: >>> FEED PRINTER >>>

**Identification of Manufacturing Unit**

CORE products are manufactured both in Europe and in the US. *Sheets from different manufacturing units should never be matched.* The unit of manufacture can be identified from the reel number:

- x.xx.D52.xxxx/xxxx indicates European manufacture
- H3xxxxxxx/xxxx indicates US manufacture

**Identification of Manufacturing Campaign**

Material from different manufacturing units or different production campaigns should not be matched. There may be subtle differences which will give rise to curl in the finished card.

When a pallet is supplied it always contains the correct number of matched fronts / backs. In order to guarantee best performance DTF will aim to ensure that the matched sheets on a given pallet come from the same manufacturing campaign.

Occasionally this is not possible, if material from more than one campaign is supplied on a given pallet then a layer of brown paper will be inserted to identify where the campaign changes and we will place a special attention notice on the film. If this is the case there will still be the correct number of fronts/backs from each campaign.

To minimise the risk we recommend that the material from a given pallet is kept together in the card manufacturing process. If this does not prove possible the campaign can be identified from the reel number:

- With European material, sheets from 2.03.D52.2221 come from shift number 2221. Every 12 hours this number increases by one. You can therefore identify sheets as being from a given campaign by comparing this number – do not match material if this differs significantly (i.e. difference is greater than 40).
- With US material the reel numbering is slightly different. Typical reel number is H315077300, here the numbers highlighted indicate the mill roll number (i.e. 50733) which increases sequentially, if the difference is greater than 200 this indicates that material is from different campaigns. Always ignore the last two digits, these are used to identify the reel position during slitting.