EFIA
EUROPEAN FLEXOGRAPHIC INDUSTRY ASSOCIATION

EFIA print awards 2019

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Judges' Guidelines

INTRODUCTION

We have produced this set of Judges' Guidelines for you to read, prior to the judging, which we hope will help you with the task ahead. Please take time during the judging to read the information that printers include on their application forms, which are in the relevant class folders. Our aim throughout the judging is to be as impartial as possible and to assess the print quality and not the design.

1. GENERAL RULES FOR JUDGES

1. You will not be entitled to judge in a category or class if your company (in the case of a printer) has entered that particular category or class. As a supplier if you have been closely involved in the production of any print you will be expected to stand aside from any judging decision, although you may be asked technical questions.

2. Guidelines for the individual classes have been produced and are enclosed. The aim of these guides is to help you understand the challenges and complexities of printing on particular substrates or products, as we recognise that not all of you are experts in all fields.

3. When judging you should consider the **Degree of Difficulty** in producing the print i.e. how tough it was to print and also consider the **Level of Execution** i.e. how well the job was printed.

Degree of Difficulty

When considering the degree of difficulty, the following points should be taken into account:-

- Substrate Printability
- Ink Compatibility
- Registration Tolerances
- Printing Complexity
- Fineness of Print and/or Screen
- Tonal Range
- Defects
- Kit/equipment that has been used

Level of Execution

When considering the Level of Execution, the following points should be taken into account:-

- Image Sharpness
- Ink Coverage
- Registration
- Dot/Screen/Vignette Quality
- Consistency

2. CATEGORY/CLASS GUIDELINES

We have produced a short summary of points that we feel judges should be aware of when examining prints from specific classes or categories. These guidelines have been written by experts selected from each particular discipline.

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A CORRUGATED POST PRINT & POST PRINT ON FOLDER GLUERS

Printing directly onto corrugated board, commonly known as "Post-print", is the most misunderstood discipline in the flexo industry.

Consider these factors:

- It is the only area where the printer does not have the luxury of printing directly onto a flat surface. This increases the "flute lines" seen in half-tone printing due to the greater dot gain over the high spots in the surface of the board.
- Some corrugated printers cannot change the anilox roll to suit the varying print requirements so solids, line and tone work all have to be produced using the same anilox.
- Artwork has to be tailored to suit the press more so than in flexible packaging or preprint.
- Individual sheets of board are usually not flat, which increases the difficulty of producing with tight registration.
- The paper surface is much more porous and uneven than for plastic films used in flexibles printing.
- Some machines do not have dryers to assist production, so ink control is essential.
- Cleanliness of print can be a challenge. In some circumstances, due to the manufacturing environment, e.g. rotary die cutting in line, hickies become difficult to control or eliminate altogether.

Please look at the corrugated prints with a broad mind and try to understand the difficulties and restrictions.

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B FLEXO PRINT ON FILM

Flexible Packaging Printing has arguably advanced more than the other categories in recent years.

Consider these factors:

- Dot gain has been reduced to very low levels with the help of digital technology.
- We have finer anilox specifications.
- We now have digital drive presses that can have registration/colour control equipment fitted that controls any movement.

However, considering those positive factors, there are a number of substrates which can be used and the degree of difficulty of execution is influenced by the specific substrate. It is also necessary to consider the specific printing press for each particular print and the width of the print.

- **Special effect inks** - e.g. metallic inks can be difficult to use and drying can be slower causing press speed to be reduced.

- **Substrate used** - paper products are easier to use than vinyls and for example, PE/PP products can be affected by heat, which can affect registration.

- **OPP films** - are difficult to convert on older presses using UV ink systems. The main problem with this process is heat, which can melt the substrate at slower running speeds on narrow presses.

- **Cutters used** - shape, multi cut, and back cutting. Special shapes can be very difficult to strip away.

- **Laminating** - by adding a laminate you can have problems with bubbling, registration and tension. This is due to the added pressure on the substrate when applying a second film and / or adhesive process.

- **Foiling** - similar challenges to laminating.

- **De-laminating and turning** - with de-laminating you can have tension problems causing bubbling when re-laminating and also turning through turner bars can have the same effect. Increased tension can cause snapping of the web and register problems.

- **Reverse printing** - on either the backing material or directly onto the adhesive - the latter requires the substrate to be de-laminated before printing and re-laminating and turning before the next colour is printed. Tension, registration and web realignment are all difficult if not carried out correctly.

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C FLEXO PRINT ON PAPER

This category covers the range from small to very large print widths.

High quality large and small format paper liners are normally printed on 4/6/8 + 1 colour CI presses. The presses are similar to those used for Flexible Packaging on film but are considerably larger, some being able to print up to 2 metre repeats and up to 2.8 metre widths, normally using water based inks on paper.
There are also inline/stack presses.

When analysing printed samples, you need to make allowances for the size of the print area. The larger the print area, the more difficult it is to achieve a perfect print. For example, an average 6 colour + varnish small format design may be 1 metre wide by 0.8 metre repeat, whereas an average 6 colour large format design may be 2.3 metres wide by 1.75 metres repeat.

The following factors should be taken into account when judging the entries:

- **Size of Repeat** - The larger the print repeat, the more difficult it is to achieve good register. Large print repeats also raise the problem of "differential stretch"; this is due to printing plates with different amounts of image area stretching at different rates, thus affecting the overall length of the plate, resulting in mis-register.

  Differential stretch can be reduced by splitting the plates around the print cylinder, but again this can lead to further mis-register due to tolerance limitations during plate setting.

- **Width of Print** - The wider the print area the more difficult it is to achieve good register. Wider print widths are achieved by stepping the printing plates as lanes across the print cylinder. The layout of the design will dictate how many lanes of printing plates are set across the print cylinder. This could be 2,3,4,5 or more and, again, this multiplies the chance for mis-register.

- **Number of Plates** - As stated above the number of plates required to print a design is dependent on the repeat length and print width. An average 6 colour + varnish small format design will use 7 x 1 piece plates, yet an average 6 colour + varnish large format design stepped 3 across and split 2 round may use 36 printing plates, hence increasing the potential for mis-register.

- **Cleanliness Of Print** - The larger the print format the more difficult it is to remove "hickies" from the printing plates. An average small format design may consist of 5.6 square metres of printing plate, yet an average large format design may consist of 28.1 square metres, hence increasing the potential for hickies 5 times.

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C FLEXO PRINT ON PAPER (Continued)

- **Trapping** - Trapping is when one colour does not print cleanly over another, creating a mottled effect. This can be reduced by using small grips. Small format designs that consist of 1-piece printing plates can run with grips of around 0.2mm, yet large format designs consisting of several lanes across and split plates around the repeat need to have larger grips (up to 0.6mm). This is to compensate for mis-register, thus increasing and emphasising the problem of trapping.

- **Varnish** - All high quality process print is done on clay coated papers. In order to protect the print surface from the elements, from damage during handling, to prevent ink smudge and to enhance the print, a coating of varnish is applied. This can be either a water based varnish or a UV varnish.

UV varnish has a high gloss and lifts the colours in the design, thus making the design more eye-catching. This needs taking into account when comparing entries with water based varnish.

- **Type of Paper** - A wide range of papers can be used ranging from 65g to 440g. The quality of the paper also varies from brown and white top test to high quality clay coated paper and the print result can be greatly affected by the paper quality.

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D SPECIAL CATEGORIES

TECHNICAL INNOVATION
2 awards will be given – one to printers and one to suppliers. Entries need to be accompanied with documentation to support the case for innovation.

Printers are invited to submit entries that show outstanding innovation in flexography. It may be the use of a difficult or demanding substrate or the use of a technical development new to the flexo industry.

Suppliers are invited to submit entries that have assisted the flexo process in terms of consistency, repeatability, improved productivity or the use of a new technical development.

USE OF FLEXO FOR BRANDS
Submissions need to demonstrate a successful move to flexo from litho or gravure for a brand. An explanation needs to be given on the entry form with a sample of the gravure or litho print or a proof to support the evidence.

ENVIRONMENTAL & SUSTAINABILITY AWARD
Awarded to the company (printer, brand or supplier in the flexo sector) who has demonstrated a commitment to sustainability and improving the environment. A 500 word submission, with examples if relevant, is required to provide evidence.

BEST USE OF A COMPLEMENTARY PROCESS WITH FLEXO
This award is given to the company (printer, brand or supplier) who can demonstrate a successful or innovative use of a complementary printing technology used with the flexographic process.

PROMOTIONAL PRINT
This award will be given to a submission which demonstrates creativity, innovation or technological developments in flexography.

OTHER AWARDS

STUDENT OF THE YEAR
This is given to the student who has demonstrated the highest level of progress on the EFIA Academy and Continuous Professional Development Programme.

REPRO COMPANY OF THE YEAR
Awarded to the company whose repro helped produce the largest number of awards.

SUPPLIER OF THE YEAR
Printers will be asked to nominate a supplier of the year via email with criteria outlined by the Board of EFIA.

BEST INTERNATIONAL PRINT
Awarded to the best print from an international company.