

Colorworks Calculator

Preliminary information and Terms of use

1) What you need to know before use:

- The ColorWorks Calculator (hereafter also “Calculator”) has been developed by Smithers Information on behalf of Epson Europe B.V. (hereafter “Epson”)
- The Calculator provides a comparison between traditional label printing processes and printing on-demand labels using a ColorWorks label printer.
- Based on user-defined inputs and industry assumptions verified by Smithers Information, the Calculator estimates the potential savings of using ColorWorks in terms of energy, consumables and waste materials.
- CO2 emissions are calculated using the European Union (27) greenhouse gas emission intensity of electricity generation (g CO2/kWh) according to EEA published 25 Oct 2023. https://www.eea.europa.eu/data-and-maps/daviz/co2-emission-intensity-14#tab-chart_7

- o The key inputs are:

Size of the label (average size can be used if multiple sizes required)

The number of labels required per month (the number per year can be used if desired)

The approximate scrapage rate using the current process. This defaults to 20% which would be typical for many branded products where there are last minute design changes, changes to listed ingredients and legislative updates which all require new labelling.

Typical print area coverage. This defaults to 60% which would be typical of a design that includes some graphics as well as text.

Current printing method. This is the current method that is used for printing labels and the method against which the comparison with Colorworks would be carried out.

- o The key assumptions include:
 - Values for CO2e are cradle to grave (vs. cradle to gate) where available. This provides data for the whole life cycle of the appropriate product including production, transport, use phase and disposal.
 - Label stock assumptions:
 - o The release liner is not recycled
 - o the waste matrix (the material around a die cut label) is recycled
 - o Labels at end of life are disposed of as Energy from Waste (EFW) and do not go into landfill
 - Thermal printing assumptions:
 - o It is assumed that ribbon saver technology is not used
 - o It is assumed that waste thermal ribbon is disposed of as Energy from Waste (EFW)
 - Analogue flexo printing assumptions

- A single, new set of plates is needed per job
- Inkjet cartridge assumptions:
 - Cartridges are recycled as Dense Plastics.

2) Terms of use:

- The Calculator is **designed as a guide only**. Although Epson has used reasonable endeavours to ensure the accuracy of the data, no representations or warranties are made as to accuracy or currency of the data. Users of the Calculator should take steps to verify the accuracy of important data which materially affects their business and should not rely on the figures provided by the Calculator to make business decisions.
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- All competitors' manufacturer specifications and performance data have been collated from publicly available information including but not limited to manufacturers own brochures and websites.
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