



# DIGIMARC

## Implementation of DIGIMARC barcodes into SIG designs

---

Status April 2023

Table of contents	02
General Information and Process description	03
Screen Based Implementation	04
Binary Pattern-based Implementation	05

## General Information

Digimarc Barcode contains the same data as traditional visible barcodes, such as EAN/UPC barcodes. Unlike visible barcodes that are typically applied to one or two locations on a package, Digimarc Barcode can be applied via an artwork enhancement process throughout the entire package design.

## Process description

After receiving the artwork, the repro phase will be started on the qualified cylinder supplier side. After finalizing the repro, the repro files will be forwarded to the Digimarc agency. After the repro has been enhanced the repro will be retransferred to the cylinder supplier to create proofs for customers approval process.

The following information's are relating to Digimarc codes with 150wpi (waxels per inch)

### Screen Based Implementation

%	S2	S3	S4	S5	S6	S7	S8	S9	S10
> 95%	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
90%	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Orange
80%	Orange	Orange	Orange	Orange	Orange	Green	Green	Light Green	Orange
70%	Orange	Orange	Orange	Orange	Green	Green	Green	Light Green	Orange
60%	Orange	Orange	Green	Green	Green	Green	Light Green	Orange	Orange
50%	Green	Green	Green	Green	Green	Light Green	Orange	Orange	Orange
40%	Green	Green	Green	Green	Light Green	Orange	Orange	Orange	Orange
30%	Green	Green	Green	Light Green	Orange	Orange	Orange	Orange	Orange
20%	Green	Green	Light Green	Orange	Orange	Orange	Orange	Orange	Orange
10%	Green	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
5%	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
< 5%	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange

- Not allowed for enhancement.
- Allowed tone area for multicolor (CMYK) + single / stand alone color).
- Allowed only for single color / stand alone

**Parameter for implementing Digimarc Barcode to SIGs printing process.**

- The intensity level of the codes is linked to the before mentioned (on page 4) tonal values of the colors and the intensity level of the codes.
- Minimum and maximum tonal values needs to be according to the table on page 4.
- An implementation of the Digimarc codes in white areas needs to be avoided.

**Binary Pattern-based Implementation*****Attention!***

- Binary pattern-based implementation should be avoided. The pattern-based implementation can cause to problems such as unreadability of the Digimarc code. If the design requires the use of binary pattern-based implementation the following settings needs to be considered.
- Minimum size for positive and negative binary pattern enhanced codes is size DS3 (0,24mm) starting on frequency level of min. => DD30.

DS3 0,24	DD30	DD40	DD50