

# Flexible Packaging Overview



## Overview

Flexible packaging is any non-rigid packaging structure used to package and protect products, that can be readily changed in shape. The packaging may be made up of paper, plastic film, foil, or any combination of these and includes pouches, bags, labels/wraps, lidding, shrink sleeves, and stretch film.

The industry continues to advance at an unprecedented rate replacing more traditional packaging, such as glass jars and metal cans, more and more each year as its benefits are acknowledged. These benefits include extended shelf life, improved cost economics, reduced pack weights, and lower transport costs.

## Why Thermal Transfer Ribbons?

Using near edge thermal transfer ribbons and printers to print on flexible packaging materials has advantages:



### High print speeds

Print speeds of 26 inches-per-second are not uncommon, which means that an inline printer can keep up with high-speed production lines.



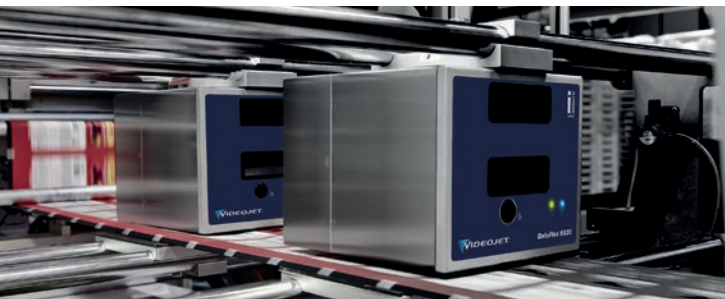
### Variable substrate thickness

Thicker flexible films, which cause many problems to the fixed printheads of flat head machines, are easily accommodated by the floating printheads of near edge printers.



### Wider variety of printable substrates

In contrast to flat head, near edge ribbons are not limited to printing only on surfaces specifically prepared for thermal transfer. In particular, preprinted packaging films make good print surfaces for DNP's near edge flexible packaging ribbons.



These advantages have helped thermal transfer make inroads into many different flexible packaging applications and markets.

# DNP

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#### DNP Global Locations

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# Flexible Packaging Applications



## Food & Beverage

Printing of “best by” dates and lot numbers has increased as food safety becomes a growing concern among consumers. Traceability is critically important in the event of a product recall, and this information must remain legible. Other printed items, such as barcodes, part numbers, and item numbers, also require durability.



## Health & Beauty

The healthcare industry uses barcodes to capture information for tracking patients and testing samples. These printed images must be abrasion and solvent resistant. In addition, cosmetics, such as perfume and lipstick, are often packaged in chipboard boxes that are imprinted with date, manufacturer, lot codes, and more. These must remain clear and readable as well.



## Pharmaceutical

Tracking the manufacturing of specific drugs or medical devices is critical for both the supplier and the consumer. It's important for a pharmaceutical company to control and regulate the inventory of a specific drug, as well as for the local pharmacy to control the consumer supply of that drug. It's imperative for a medical device manufacturer to provide complete traceability. Both applications require printing that is crisp and durable.

## Solutions from DNP



Our near edge thermal transfer ribbons are specifically designed for next-generation thermal transfer printing. They offer superior performance and create crisp, clean, sharp-looking barcodes for a wider variety of substrate materials.

M295HD High Density Near Edge Wax/Resin

M295C Specialty Near Edge Wax/Resin Color

TR4500 Premium Near Edge Wax/Resin

R390 Near Edge Resin

R396 High Speed Durable Near Edge Resin

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