

# Focus on packaging Chapter 3



**Coating on packaging**  
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# Varnish Coating application

## Why use a varnish coating?

- The varnish coating is used on printed sheets/packageging primarily to
  - protect the sheet of paper
  - protect black backgrounds
  - add extra gloss where precisely needed to enhance visual graphics

## 1. Saving time

- One of the simplest reasons to use a varnish coating is to print short series
- The aqueous varnish is used to save time since it seals ink and dries quickly.

# Varnish Coating application

## 2. Creating visual effects

- A wide range of varnishes with different finishes, colors and textures are available and can be used to varnish/gloss the full sheet or spot areas.
- Designers use these elements to create visual effects.
- Varnishes offer designers benefits that online media can not – giving tangible depth, dimension and texture to images and words.

# Varnish Coating application

## 3. Preservation

- A flood varnish covers the entire printed page for protection or glossy effects.
- A spot varnish allows to highlight specific areas of a printed piece and adds shine and depth to specific elements.
- Varnishes are also applied on-press, but they are heavier-bodied and can be applied (like inks) to only certain areas (spot varnish).
- A plate must be created to apply a spot varnish.

# Varnish Coating application

## The aqueous varnish

- The aqueous varnish is among the most commonly used coating due to its low cost.
- It offers good protection against friction and increases the durability of the print.
- The drying is fast or even immediate (blowing hot air or I.R.).
- It is color-less and non-yellowing. Its brightness is high.
- This varnish is adhesive and transparent.
- The leaves with an aqueous varnish can be handled almost immediately.
- Because it is made up of 60 to 70% water, the aqueous varnish is generally provided in the form of a coating, covering the entire sheet.
- The water content of this varnish also affects the substrate you are using.
- The uncoated substrate is very porous and acts as a sponge when the varnish is applied.
- The aqueous phase varnishes can be applied from the dampening tank, varnishing machine or varnishing unit: doctor blade chamber with anilox cylinder of linearity 80 - 100 cm and capacity 6, 9 or 13 cm<sup>3</sup> / m<sup>2</sup> , (Most commonly used). Acrylic varnishes can be used on-line on offset inks.

# Varnish Coating application

## UV Coating

- Their formulation is of the same chemical nature as that of UV inks, that is to say based on reactive resins which polymerize and form a hard film under UV radiation.
- UV varnishes can be applied from the ink fountain or varnishing unit and require specific UV drying equipment.
- They can be used online on UV, Flexo and Hélio inks, taken from Offset inks.
- They show the best performance in terms of strength, shine and instant drying under UV radiation. The compatibility of UV inks / UV varnishes is therefore optimal.
- Their application on offset inks requires precautions.

# Varnish Coating application

## Soft Touch® varnishes

- The Soft Touch® varnish creates an ultra soft touch effect, called "peach skin" or "velvet effect".
- Its appearance is colorless and without any gloss.
- The impression of softness obtained is remarkable, while the scratch resistance and the hardness are excellent.
- This fast-drying coating is non-yellowing and environmentally friendly, but will cause a slight change in color.
- Soft Touch® coating is not recommended for high-intensity color prints.

# A guide to select among our solutions





# Coating plates selection by application



	714 STRIP	X COAT	X COAT PLUS	STRIP	HI -COAT	HI-COAT PLUS	894	3115-3135	2115-2135-2195
COATING	X	X	X	X	X	X	X	X	X
INK	Aqueos or UV	Aqueos or UV	Aqueos or UV	Aqueos or UV	Aqueos or UV	Aqueos or UV	Aqueos or UV	Aqueos or UV	Aqueos or UV
TOP COMPOUND	NBR	NBR	Polymer	NBR	NBR	Polymer	NBR	NBR	Polymer
THICKNESS	1.95 mm	1.15-1.35 mm	1.15-1.35-1.95* mm	1.95 mm	1.15-1.35 mm	1.15-1.35-1.95 mm	1.95 mm	1.15mm 1.35mm	1.15-1.35-1.95 mm
ROUGHNESS	0.50 - 0.70 µm	0.40 - 0.70 µm	N.A.	0.50 - 1.00 µm	0.40 - 0.70 µm	N.A.	0.50 - 1.00 µm	0.40 - 0.70 µm	N.A.
LOAD Kg/cm <sup>2</sup>	250	N.A.	N.A.	250	N.A.	N.A.	150	N.A.	N.A.
Ply	4	-	-	-	-	-	3	-	-
BOTTOM	Cotton Fabric	Bottom Plastic	Bottom Plastic	Cotton Fabric	Bottom Plastic	Bottom Plastic	Cotton Fabric	Bottom Plastic	Bottom Plastic



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Next: Sheetfed in September 2017