

# UNIVERSAL CARBONLESS

Designed and  
Engineered for  
Both Offset and  
Digital Printing



## Product Description

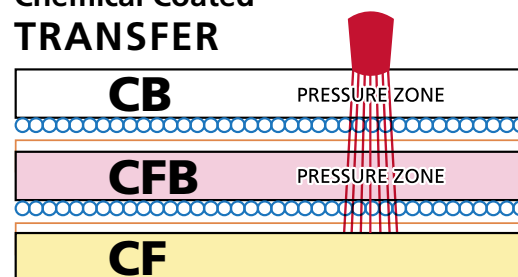
Nekoosa Coated Products Universal Carbonless Paper is a true multi print-platform carbonless sheet designed for long run offset printing, quick turnaround digital copier printing, and color or black-and-white laser printers, where high pressure and high temperatures are present.

Universal Carbonless paper is a dye coated transfer carbonless paper for use in business forms and other applications where pressure responsive mated paper is required.

The backside of Universal carbonless CB and CFB sheets are coated with micro-sized capsules that contain image-forming dyes. The front side of Universal carbonless CF and CFB sheets have mating developer coating on the front.

When pressure is applied to a mated set, the micro capsules on the back of the CB and CFB sheet break and the image forming dyes are transferred to the mating developer chemistry on the front of the CF and CFB sheets. The chemicals then react and form a black image.

## Chemical Coated TRANSFER



CB: Coated Back » CFB: Coated Front and Back » CF: Coated Front

## Physical Properties Average Values

PROPERTY	TEST METHOD	CB	CFB	CF	TERMINOLOGY
Basis Weight	T-410	21.0	22.0	21.0	Lbs/500-17"x22"
Basis Weight	T-410	79.0	82.7	79.0	g/m <sup>2</sup>
Caliper	T-411	4.4	4.4	4.1	mils
Brightness (white only)	T-452	92.0			
Opacity	T-425	88.1			percent
Image Color	NCP Test	Black			
Odor	NCP Test	Very Slight Odor			

Test methods prefixed with a "T" are established by the Technical Association of the Pulp and Paper Industry.

## Technical Properties

**SHELF LIFE AND STORAGE:** The normal ranges of temperature and humidity have very little effect on the performance of Nekoosa Coated Products Universal Carbonless Paper. The shelf life of products stored under normal storage conditions is at least two years. Stock should be kept current by practicing a first in-first out inventory rotation. Imaged sheets should be stored in normal office conditions to avoid reducing the permanency of the image. Such image reduction can be caused by excessive exposure to hand lotions and ultra-violet light sources. Should there be any questions concerning the performance of Nekoosa Coated Products Universal Carbonless paper in any specific applications, it is recommended that tests be conducted under "in-use" conditions to assure product suitability.

**SPEED OF IMAGE FORMATION:** Nekoosa Coated Products Universal Carbonless Paper is immediately legible. The image will continue to darken over a short period of time. This darkening is most apparent in handwritten forms. Extremely cold temperatures slow down the speed of the image formation and conversely, higher temperatures increase the reaction rate.

**PRESSURE REQUIRED TO IMAGE:** Nekoosa Coated Products Universal Carbonless paper produces quality copies using most impact imaging equipment. Because of the differences in individual requirements, the wide range of pressure exerted by various printers or writing pressure associated with hand entry, users should conduct tests simulating actual usage conditions for assuring satisfactory performance in specific applications.

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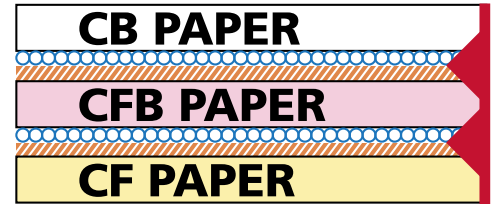
**MICROFILMING AND COPYING:** Nekoosa Coated Products Universal Carbonless paper images reproduce very well on microfilm and on most copying equipment. Equipment employing an infrared process or diazo, where a translucent original is necessary, will not produce acceptable copies from carbonless paper.

**FAN-OUT PADDING:** Nekoosa Coated Products Universal carbonless sheets are designed for use with Nekoosa Coated Products Fan-Out Padding Adhesive to make fan-apart form sets.

A CB sheet in the top position and a CF sheet in the bottom position are required for proper fan-out.

Nekoosa Coated Products Universal Carbonless Papers are designed to repel the adhesive at the front of the CB and back of the CF sheets. This allows the production of form sets when the stock is fanned at the corners.

## 3-PART SET



OOOO MICROCAPSULES  
////// MATING CHEMISTRY

NOTE: This form set must have a CB sheet as the top ply and a CF sheet as the bottom ply with all the intermediate sheets being CFB sheets.

## Printing Characteristics

**LOADING THE EQUIPMENT:** Universal Carbonless Paper must be printed/copied on the proper side. The arrow on the ream label points to the correct print/copy side. Also, the print side may be identified after the ream wrapper is removed by observing the side ream identification arrows on the end of the ream. These arrows point to the print side of the paper. When filling the feed tray or paper supply bin, face the print side up or down pursuant to the recommendations of the machine manufacturer. Fan the paper before placing stock into the feed tray or bin. This process captures air between the individual sheets to enable smooth feeding.

**DELIVERY:** Precollated Nekoosa Coated Products Universal Carbonless Paper is specifically designed for use with machines using toner heat fusing systems and delivering sheets into a receiving tray.

**CONDITIONING AND HANDLING:** As with most paper grades, Nekoosa Coated Products Universal Carbonless Paper should be acclimated to copy room conditions before printing. Keep paper stored in original protective packaging until needed. Unused paper should be resealed in the

original wrapper and stored in a controlled environment. Handle paper with minimal pressure to avoid inadvertently marking or scuffing of the paper.

**IMAGE TEST:** Make a small firm mark on the first completed form set. Check each ply for the presence of the carbonless image. This will indicate whether or not the printing/copying is being performed on the proper side of the paper.

**SCUFF MARK:** When printing on some digital equipment, a small mark may be seen on some sheets in the finished set. This is a result of the machine feeding system. The scuff mark is not present in the top sheet of the form.

**PRESS AND INK:** When printing Nekoosa Coated Products Universal Carbonless Paper on wet offset, dry offset or letterpress equipment, standard low tack inks give the best performance.

## Additional Information



Should additional information or assistance be desired, contact:

Nekoosa Coated Products  
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Nekoosa, WI 54457  
Phone (800) 826-4886

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