NEENAH

MONTELENA® Cover Material

Processing Guidelines

Note: Determination of the suitability of MONTELENA® Cover Material for the intended use is the responsibility of the user. Due to the specialty nature of this sheet, and variability of individual pressroom equipment/conditions, sample sheets should be fully tested prior to the actual print run. The renewable raw materials used to manufacture paper can absorb moisture from high humidity air so acclimation of the MONTELENA Cover Material to converting operation or press room conditions is advised (see below).

Burnishing

A key benefit of the MONTELENA Cover Stock is its beautiful burnishing and blind stamping capability.

- Very high pressures are not recommended, as a messy, "melted" appearance can result. (On a 100-ton Kludge press, ideal temperature settings were between 350 and 400°F.)
- Lower temperatures at longer dwell times should also provide the desired outcome.
- A semi-rigid backing for make-ready will lead to a more even color shift.
- Copper or brass dies are recommended
- Designs with burnished areas below 1-1.5" edge-to-edge may reproduce better

Foil Stamping and Embossing

- Metallic foils are recommended. Good results have been seen with Great Western Foils MS and MUH series, as well as some Crown Roll Leaf and Infinity foils. If choosing a pigmented foil, caution should be taken to work with your foil supplier and test thoroughly before committing to artwork as some of our customers experience problems attempting to stamp with pigmented foils.
- Typical temperatures for stamping and embossing range from 240-290°F but may vary depending on your chosen foil.
- Copper or brass dies are recommended
- Designs with fill areas approximately a 2" x 2" or smaller are recommended. Layered make-readies are recommended to prevent pin-holing issues.

Screen Printing

MONTELENA Cover Material yields excellent results with screen printing.

- Solvent or water-based inks are recommended.
- MONTELENA Cover Material should be fully acclimated to the environment (with shrink wrap on) per.

Offset Printing

Printing MONTELENA Cover Material is similar to printing on plastic because the surface holds out water from the press, in a similar manner as a plastic surface.

- For optimal results, we recommend screen size of up to 150 lpi. Under-color removal may be required on jobs with large dark areas.
- 100% oxidizing, high solids inks are recommended and should be pretested on the stock. UV offset inks can also be used.
- Running the water to the minimal setting is recommended
- 350 micron spray powder is recommended. Ink coverage and lift height will affect your final choice.
- Lift size should be of 4" or smaller, to alleviate set off.

Offset Printing Watchouts:

- Heavy ink coverage is not recommended if you want to retain the soft supple feel of the material as the soft feel of the product will be compromised in heavy areas of coverage. Ink coverage lower than 260% is recommended to avoid set off issues.
- As is sometimes a problem with coated stocks, certain inks can create a chemical based ghosting or staining of the stock. Caution should be used when printing solids or PMS colors on lighter grades. Drying compounds may shorten drying times but should be used with caution as overuse may cause a staining or ghosting to occur.
- As with other black matte coated stocks, some infrared press sensors may have trouble detecting black paper. Consult with your press manufacturer. Some printers have overcome this issue by applying white tape along the edge of the first few press sheets.

Dry Toner Digital Printing

MONTELENA Cover Material can be digitally printed with dry-toner processes.

- Designs with larger areas of coverage should be tested to ensure completion without pinholes in toner coverage. Heavy applications of toner based print may also compromise the soft-touch feel of Montelena.

Coatings

- Aqueous and UV coatings can be used on MONTELENA Cover Material, however, the soft-touch feel will be compromised where coating is applied.
- Spot UV, and spot varnishing are recommended to retain the soft-touch feel of the material.

Gluing

- Test any new paper/glue combinations.
- Animal, synthetic, and hot melt glues should work on the back side of MONTELENA Cover Material.
- Synthetic glues are recommended for use on the face side of the stock. .

Cutting and Die-cutting

- Sharp knives and dies are key to avoid fibrous dust that can impact printing and other converting steps due to the high strength nature of the product.

Acclimation of Stock

The renewable raw materials used to manufacture paper can absorb moisture from high humidity air so acclimation of the MONTELENA Cover Material to converting operation or press room conditions is advised. We have found that the information below is pertinent or visit: http://printing.org/Effects-of-Temperature-and-Humidity-on-Paper.

"If paper is unwrapped while cold and allowed to stand in the pressroom it will very quickly develop a bad case of waviness because its low temperature chills the air immediately surrounding the pile and raises the relative humidity to approximately the saturation point, or 100 percent. Under these conditions, the edges of the sheets may pick up 10 or 12 percent of moisture before the pile warms up. As the temperature of the pile rises this excess of moisture will be partially given off, but in the process the moisture content of the paper at the edges will follow the desorption curve and will not return to the same moisture content as the rest of the sheet. While the waviness may be reduced somewhat, it will not disappear."

- Completely cover the top and sides of the stock with moisture proof wrappings after your processing is complete and during any delays to prevent development of problems.
- Rewrap any unused portions of the stock to protect its moisture content.
- If you subcontract any of your processing, your subcontractor should also follow these guidelines.

Days Required for Temperature Equalization

Temperature Difference								
Volume in cubic Feet	**10° F**	**15° F**	**20° F**	**25° F**	**30° F**	**40° F**	**50° F**	**60° F**
6	½	½	½	1	1	1	1 ½	2 ½
12	½	½	1	1	1	1 ½	2	3 ½
24	½	½	1	1	1 ½	2	3	4
48	½	1	1	1 ½	1 ½	2 ½	3	4 ½
95	½	1	1	1 ½	1 ½	2 ½	3 ½	5
	6° C	8° C	11° C	14° C	17° C	22° C	28° C	33° C

EXCERPT FROM GRAPHIC ARTS TECHNICAL FOUNDATION (GATF) TECHNICAL BULLETIN NO. 8