



Recommendations For Handling Milliken Napery Fabrics

For Laundries With No Finishing Equipment

BASIC REQUIREMENTS:

1. Equipment **must** be free of burrs and sharp edges.
2. Washing equipment should have properly functioning water level and temperature controls.
3. Chemical feed systems must be functioning properly.
4. Drying equipment must have properly functioning temperature and cool-down controls.
5. Lint screens on dryers must be cleaned daily.
6. Standard operating procedure should include periodic inspections of the above listed requirements.

PROCESSING REQUIREMENTS:

1. Before placing new linen into service, it should be washed to remove manufacturing residual dyes. **New darker shades should always be washed separately for five (5) washes.**
2. Shade groups such as **whites, darks, mediums, lights, and reds should always be washed separately.** Contact your Milliken representative for further information on shade groupings.
3. All linen must be shaken out so debris (paper, trash, food, sharp objects and any other foreign matter) will not be loaded into the washer with the table linen.
4. Milliken Napery Fabrics **should be washed separately** from 100% Cotton and Poly/Cotton blends to avoid contamination from lint.
5. For good mechanical action, load washwheel: Full Drop–90% Split Pocket–75% Y-Pocket–65%
6. Wash formula and wash chemicals should be appropriate for type and amount of soil to be removed.
7. Surfactants are recommended in the break cycle.
8. Adequate cool down in both the wash wheel and dryer is critical.
9. Bleaches should not be used on colored Milliken napery.
10. Softeners and waxes must not be used with Milliken napery, as these will mask the absorbency of the fabric.
11. Adequate rinsing to remove residual chemical is necessary to ensure maximum fabric life and color retention.

PROCESSING REQUIREMENTS FOR GINGHAM CHECKS:

1. All requirements as stated above.
2. Checkpoint fabrics must be washed separately from all other linen products to prevent color transfer from other products.

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SUGGESTED WASH FORMULAS & CHEMICAL SUPPLIES FOR MILLIKEN NAPERY:

CYCLE	WATER LEVEL	°F TEMPERATURE		TIME (Min)	WHITE SUPPLIES/100 lbs. (CWT)	COLOR SUPPLIES/100 lbs. (CWT)	TARGET PPM	
		WHITE	COLOR				WHITE	COLOR
Flush	High	Split	Split	3	-----	-----		
Break	Low	140 - 160	120 - 160	12	12 - 24 oz. Alkali (pH 11-12)* 12 - 15 oz. Surfactant	12 - 24 oz. Alkali (pH 11-12)* 12 - 15 oz. Surfactant	<1500	<1500
Carry-over	Low	140 - 160	120 - 160	6	-----	-----		
Bleach	Low	150	----	8	12 - 16 oz. (pH 10.2 - 10.8)	NOT RECOMMENDED	100 - 200	N/A
Rinse	High	135	120 - 145**	2	-----	-----		
Rinse	High	120	105 - 130	2	-----	-----		
Rinse / A/C	High	105	90 - 115	2	2 - 4 oz. of Antichlor	-----		
Sour	Low	90 -100	90 -100	5	1 - 2 oz. Sour (pH 5.5 - 6.5)	1 - 2 oz. Sour (pH 5.5 - 6.5)		
Extract				***	To Required Moisture Level	To Required Moisture Level		

Remember, this formula is a recommended starting point. Depending on your current situation, you may need to make changes.

*The true measure of alkalinity is PPM.

**Do NOT lower the temperature by more than 15 degrees per step. Set rinse temperatures based upon wash temperatures.

***Time depends on machine design. Experience shows that centrifugal time in minutes = $1500 \div G \text{ force} \left(\frac{G \text{ force} = \text{Basket RPM}^2 \times \text{Dia}}{70,500} \right)$

1. Load washers to recommended washer capacity.
2. Washing should be performed at high temperature (120° - 140°F or higher). A gradual cool-down or split rinses should be used to step down the water temperature, 15°F (or less) increments until the load is at 90° - 100°F. Thermal shock may occur if rapid temperature drops take place.
3. Avoid softeners and waxes in the wash cycle, as these will mask the absorbency of the fabric.
4. Soaps of animal or vegetable fats should be avoided.
5. Do not use chlorine bleaches on colored napery.
6. Adequate rinsing is necessary to remove residual chemicals and to ensure maximum fabric life and color retention.

SUGGESTED DRYING PROCEDURE

1. Load dryers to 50% of rated capacity.
2. Set heat cycle for a fabric temperature of 180° - 200°F.
3. Linen must be dry before "cool - down" cycle starts. Drying time usually varies between 10 and 20 minutes, depending on extraction, load size, and temperature.
4. The linen and walls of the dryer must be cooled down to room temperature before the dryer is stopped. Approximate cool-down times range from 8 to 15 minutes.
5. To minimize wrinkling, expedite loads through all processing procedures: washing, drying, and folding.
6. These handling procedures should be utilized to obtain optimum flat-dry results:
 - a. Tablecloths and napkins should be unloaded from dryer immediately after cycle is complete. Tablecloths should be draped or spread across a cart or folding table as unloaded. Napkins should be stacked flat and as high as handling will permit.
 - b. Linen should be folded neatly, stacked by size and placed in an adequate storage area. Standard practice allowing 24-hour "shelf-time" will enhance the flat-dry appearance of the table linen.
7. Professional flat-dry results can best be obtained by ironing Milliken napery.

For additional information and assistance, contact:

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