Recommendations For Handling Milliken Napery Fabrics

For Laundries With 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. Follow normal extraction procedures on cool (90˚-100˚ F) linens.
4. Cleaning and waxing of ironer chest, and maintenance of roll pads and covers should comply with ironer manufacturer's recomendations. Maintain chest temperature between 310˚ F and 325˚ F on gas, steam, electric, and thermal fluid ironers.
5. Chemical feed systems must be functioning properly.

PROCESSING REQUIREMENTS:

1. Before placing new linen into service, it should be washed separately to remove manufacturing residual dyes. **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. Milliken Napery Fabrics **should be washed separately** from 100% Cotton and Poly/Cotton blends **to avoid contamination** from lint and insure proper cleaning.
4. 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.
5. Wash formula and wash chemicals should be appropriate for type and amount of soil to be removed.
6. Surfactants are recommended in the break cycle.
7. Soaps of animal or vegetable fats should be avoided.
8. Bleaches should not be used on colored Milliken napery.
9. White Milliken napery should receive antichlor treatment after hypochlorite or other chlorine bleaching.
10. For good mechanical action, load washwheel: Full Drop - 90% Split Poocket -75% Y-Pocket - 65%
11. Softeners and waxes must not be used with Milliken napery, as these will mask the absorbency of the fabric.
12. 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. Different colors of checks may be washed together after several washes.

MILLIKEN®

www.millikentablelinen.com

For Laundries With Finishing Equipment

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	120-130	2	- - - - - - - -	- - - - - - - -		
Rinse / AC	High	105	105-115	2	2 - 4 oz. of Antichlor	- - - - - - - -		
Sour	Low	90 -100	90 -100	2	1 - 2 oz. Sour (pH 5.5 - 6.5) Do Not Drain After Sour	1 - 2 oz. Sour (pH 5.5 - 6.5) Do Not Drain After Sour		
Starch	Low	90 - 100	90 - 100	8 - 10	To Desired Level - Typical Range is 12 - 24 oz. of Natural Starch	To Desired Level - Typical Range is 12 - 24 oz. of Natural Starch		
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.

STARCHING AND/OR SIZING OF MILLIKEN NAPERY:

A clean fiber surface with good water absorbency is essential for proper starching or sizing of Milliken napery. To test quickly, place a few drops of water on a clean, ironed, cool, dry napkin. If water is completely absorbed into fabric within three (3) seconds, proper adhesion and film formation of starch or size should occur. Absorbency time in excess of three (3) seconds will require adequate clean up prior to starching or sizing.

1. Sour should be added to the wheel and allowed to dispense prior to adding starch or size. We suggest addition of sour **two (2) minutes** prior to addition of starch or size. This will help avoid differential absorption resulting in hard and soft spots in the napery. Sour should be added to achieve a ph of 5.5 to 6.5.
2. Starch or size should be applied during the sour step of the formula. Water level should be as low as practical (3" to 6" above basket). Water temperature should be maintained in the 90° F to 100° F range to facilitate dispersion and avoid highlighting.
3. Wheel should be allowed to run eight (8) to ten (10) minutes after addition of starch or size to allow even penetration of the dispersion throughout the load.
4. Twelve (12) to twenty-four (24) ounces per hundred weight of starch or combined starch and size is generally adequate to cover the range of aesthetics desired by restaurant customers. Corn, wheat and rice pregelantinized (dry to the wheel) starches as well as most cooked starches have all been found to work well on Milliken napery. Synthetic size in conjunction with starch also works well for those accounts who desire extra firmness. We suggest you contact your Milliken Technical Representative for assistance in selection and use of these products. Synthetic size must be removed with each wash.
5. If possible, use sufficient extraction to permit napery to be ironed without tumbling. Excessive tumbling will reduce the effectiveness of the starch or size significantly.

For additional information and assistance, contact:
Milliken & Company
920 Milliken Road M-143
Spartanburg, SC 29303
1-800-322-TEAM (864) 503-1691

Your assurance of value, quality and performance.

NAP 1200 W-20M-13692