## Technical Information



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(yol.10)

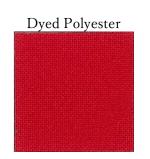
## [Wet Rubbing fastness issues of cellulosic fibers]

Throughout our long experience in consultation of cellulosic dyeing issues, one of the common requests and troubles from the dyeing factory include the wet rubbing fastness of cellulosic fibers.

Unfortunately, the poor wet rubbing fastness of cellulosic fibers cannot be solved through change in dye or dye type, as the contamination on the adjacent fabric during wet rubbing fastness of cellulosic fibers is primarily caused by the breakage of cellulosic fibers and not the dye.

The photo below is an enlarged image of the stained part after dry rubbing fastness of the fabric. Polyester fabric was dyed with a disperse dye at high depth, and dried without washing with water. Dyed Polyester fabric was then dry rubbed on an adjacent fabric.

- The color present on the adjacent fabric is the dye stain after dry rubbing.
- When staining of the dye occurs due to dry rubbing, it will stain the convex parts of the interweave/woven structure.



Staining on adjacent fabric after dry rubbing



Enlarged image of stained adjacent fabric after dry rubbing

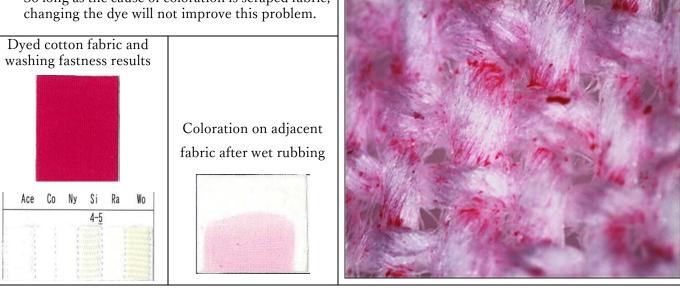




The photo below is an enlarged image of the contaminated part after wet rubbing fastness of cotton.

- The color present on the adjacent fabric is the remnants of the fabric scraped off by wet rubbing.
- The remnants of the fabric accumulate in the recessed parts of the interweave/woven structure.
- So long as the cause of coloration is scraped fabric, changing the dye will not improve this problem.

Enlarged image of fabric remnants after wet rubbing (Note the accumulation of scraped fabrics in the recessed regions of the interweave)



Although there are some chemicals that can improve the wet-rubbing fastness of cotton, we do not actively recommend them as we recognize that these chemicals lose their effect once washed.