

Recommendations for industrial washing/drying of garments

Follow instructions on the care label in the garment – and launder at least once before use – due to inevitable shrinkage, excess dye and possible chemical residues.

All size samples should be laundered before size selection and always same number of launderings (e.g., min. 2)

1. A certain amount of “color bleeding” may occur in the first laundering, in particular with dark colors. Contact your chemical supplier for possible use of color binder in initial washing.
2. Amount of “pre-launderings” before use to be particularly observed if dark colored garments (including e.g. red and burgundy/Cassis colors) are used with e.g. white pants in order to avoid risk of discoloring. (min. 3 pre-launderings of the dark color).
3. Always launder garments separately according to fabric type, color, and soil level/type.
4. Reduce “creasing” by lowering the filling rate in washing and drying to max. 70%. Residual moisture before drying should be ca. 35%. Low water level may increase the risk for creases/pilling.
5. “Waiting time” between washing and drying and in tumbler after drying as short as possible to minimize crease (e.g. ½ hour).
6. *Choose drying program (temperature/time length) according to textile type. Avoid over drying. Add steam in finisher drying. Garments with relatively high Tencel/polyester contents will dry significantly faster than cotton rich garments and should be dried separately (reduced time and/or temperature). Use “Cool-down” function. Use residual moisture measurement in tumbler.
7. *Very high drying temperatures may cause extra shrinkage – up to ca. 5% - (e.g., on products with high cotton- and/or with Tencel contents and knitted products).
8. Allow for differences in shrinkage and for customary tolerances from garment production (up to +/- 2 cm) with size samples and in particular when garments are used in “pool stocks” due to the e.g. reductions in size variants.

Our garments (including accessories such as buttons and zippers) are tested according to ISO 15797 (please see description on our web site www.nybo.com) and evaluated after 5 test rounds as specified by ETSA (European Textile Service Association), but it is recommended that you carry out your own laundry tests on new garment types and in case of doubt on existing types - before use – in order to evaluate possible effects from your own laundering conditions e.g. in washing, drying and chemical types, - compositions and - quantities.

We make reservations for possible effects of such variations in relation to ISO 15797 test results.

Optimize the durability and performance of the garments:

Certain chemicals (with contents of e.g., chlorine, lye, active oxygene bleach and optical brightener), disinfection chemicals and softeners may affect/reduce the lifetime and influence the appearance of the garment (e.g., color, peeling), buttons, zippers, and other accessories. It is important to ensure adequate number of rinses and proper neutralization in the last rinse. Non-removed/not-neutralized chemical residues may influence color and in certain cases cause skin reaction when using the garment.

Therefore, always check type and use (incl. quantity) of chemicals with your chemistry supplier.

Guidelines for industrial laundering - unless otherwise indicated on care label:

| | White | Colored + White/colored | Tumbler drying | Steamer * drying |
|--|---|----------------------------|-------------------|---------------------|
| Polyester/cotton, e.g., 65/35%, 50/50%, 60/40% with/without Stretch (EOL) and thermal clothing (quilted) | 85°C | 75°C | High | 150°C |
| Polyester/Lyocell (TENCEL™) e.g., 50/50%, 65/35%, 70/30%, 45/55% | 75°C | 60°C | High | 125°C |
| Cotton 100% | 85°C | 60°C | High | 150°C |
| Polyester/Carbon 99/1%, antistatic and microfiber (100% polyester) | 85°C | 75°C | High | 125°C* |
| Polyester 100% (jackets/upperparts with/without fleece lining and quilted Blankets) | 75°C | 60°C | High | 125°C* |
| T-shirts, polos, shirts (including ProWear and polyamide/elastan products 88/12%) | Follow the instructions on the care label sewn into the garment | | | |
| Fleece jackets and outdoor garments (e.g., soft shell) | Follow the instructions on the care label sewn into the garment | | | |

All information stated above are our recommendations. Practice may give variations – depending on the equipment, routines and methods in the laundries. Above washing temperatures are max. temperatures in main wash.

Drying in industrial tumbler: above figures state the outlet temperature – High=80°C, Medium=60-70°C.

*** Tunnel dryer (Steamer):** above figures state the inlet temperature and are subject to added steam and a max. drying time of ca. 5 minutes (ISO 15797). * See item 6. and 7. above: It is recommended to check actual temperature influence on the textile itself in the tunnel drying process, e.g., using data logger or infrared temperature measurement.

Optimize the durability of the logos:

- Choose logotype and quality according to customer’s requirement – and to industrial laundering conditions.
- Embroidery may be an alternative to print/transfer logos. Logos should iron only on the back of garment.

Domestic laundering: follow the instructions stated in the care label.