

ICS 61.020
CCS Y 75



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 31901-2024

Replacing GB/T 31901-2015

Code of practice for garment evaluation by wearer trials

服装穿着试验及评价方法

Issued on: November 28, 2024

Implemented on: December 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

1 Scope
2 Normative references
3 Terms and definitions
4 Principle
5 Classification of trials
6 Trial procedure
7 Processing of trial data
8 Evaluation and analysis of results
9 Report
Annex A (normative) Collection of wearer information
Annex B (informative) Wear trial questionnaire, wearer record and wear trial evaluation form

1 Scope

This document establishes the terms and definitions for garment wearer trials and their evaluation methods, and describes the wearer trial and the specific evaluation methods.

This document applies to trials in which a single property or the overall performance of a garment is evaluated within a specified time or over a specified number of wearings.

This document does not apply to the evaluation of the wearing of garments for infants and young children aged 36 months and under.

3 Terms and definitions

3.1 wearer trial. A controlled test carried out through wearers on items related to a garment.

3.2 wearer. A person who takes part in the trial by wearing the garment.

3.3 trial organizer. The person responsible for organising, planning and designing every aspect of the trial.

3.4 population. The identifiable group of consumers to which the garment is supplied.

3.5 overall performance. The wearer's general perceived evaluation of a garment product after wearing it.

4 Principle

A suitable number of wearers is chosen from the target population of the garment product; within a specified period they wear the garment under normal conditions of wear and laundering; the wearers evaluate a single property or the overall performance of the garment from their own experience of wearing it; and the trial organizer analyses those evaluations to obtain the result of the trial.

5 Classification of trials

Small-scale trials. A small-scale trial is generally made up of 10 to 20 wearers. It is commonly used to evaluate the performance of one or two specific parameters.

Large-scale trials. A large-scale trial shall consist of at least 50 wearers. It is commonly used for the combined evaluation of several commonly used properties of a garment product.

6 Trial procedure

Design. The purpose of the trial, such as pilling, fit or prickle, is set from the development needs of the enterprise or from customer demands. The trial organizer draws up the trial plan, fixes the trial period and determines the population. Where it is difficult for the wearers to complete the trial under the specified conditions, a large-scale trial shall be used.

Wearers shall be selected so as to represent the final consumer population as far as possible, and so that they are able to follow the instructions and requirements laid down during the trial. In a large-scale trial, since the wearers cannot be controlled absolutely and the questionnaires, records and wearer data cannot all be filled in accurately, the trial organizer shall supervise the trial site in person, manage the progress of the trial and record how the garments are worn and washed, and may where necessary discard the results of wearers who did not follow the requirements. Where children take part as wearers, the information about the trial shall be understandable to the child wearers and to their parents or guardians.

Preparation. Following the purpose and the plan designed in 6.1, the trial organizer recruits a sufficient number of wearers. The state of health of the wearers is established; a person with an acute or chronic skin disease shall not take part, except where the suitability of a garment is being tested specifically for people with skin disease.

Before wearing, the body measurements and the body type of the wearer are ascertained and measured, and the wearer's habits of life and preferences in wear, such as a liking for loose fit or for smooth fabric, are fully ascertained. Wearer information is collected as set out in Annex A, and all the information collected shall be kept confidential.

A wear trial questionnaire, a wearer record and a wear trial evaluation form are drawn up according to the purpose of the trial, as shown in Annex B. The wear trial evaluation is divided into grades 1 to 5. Grade 5 means the specimen has basically not changed or the property tested is at its best. Grade 4 means the specimen has changed slightly or the property tested is fairly good and the wearers generally accept it. Grade 3 means the specimen has changed to some extent or the property tested is average and the wearers accept it reluctantly. Grade 2 means the specimen has changed considerably or the property tested is poor and the wearers cannot accept it. Grade 1 means the specimen has changed severely or the property tested is at its worst and the wearers cannot go on using it.

The trial conditions are fixed, that is the wearing environment established in order to meet one or more purposes of the trial. The number of specimens is fixed according to the number of wearers and the corresponding number of garments is prepared. Sizes and wearers are matched: either the garments to be worn are decided first according to the purpose of the trial and wearers of suitable size are then chosen, or garments of the corresponding size are prepared from the personal data of the wearers together with their preferences in wear.

Organisation and running. The garments are issued to the wearers together with the wear trial questionnaire, an example of which is given in Table B.1, and the wearers are told the wearing environment, the wearing time, the frequency of washing, the number of washings and the drying method of the garment. The wearers shall be told to fill in the questionnaire, the wearer record and the evaluation form at least once in every maintenance cycle, that is from wearing through washing and drying to being worn again.

The wearers shall be told to wear, wash and maintain the garment at the times and in the manner specified, and told how important it is to supply additional information. The trial organizer shall visit and supervise the wearers periodically, remind them to follow the rules and guide them in filling in the trial records, and shall discard the information of wearers who do not follow them. Where the trial is completed in a professional testing laboratory, the wearers are professional testing staff and the trial environment is single and controllable, the questionnaire, the wearer record and the evaluation form do not need to be filled in under the supervision and guidance of the trial organizer.

Termination. The trial organizer shall keep in touch with the wearers about the state of the garment at set times, and during the trial shall judge in good time whether the garment can still be worn or the trial should be stopped. Valid terminations are: the trial ends at the time fixed for it; or the specimen is damaged, has pilled, prickles the skin so badly that comfort is affected, is creased so badly that appearance is affected, or has shrunk or deformed so that it can no longer be worn. Invalid terminations are: soiling that cannot be washed out and that badly affects appearance so that the garment cannot be worn; or an accident, such as the specimen being snagged and torn or lost.

Questionnaire, wearer record and wear trial evaluation. The wearers fill in the wear trial questionnaire, the wearer record and the wear trial evaluation form as required by 6.3.2 and 6.3.3. A single property or several properties of the garment may be evaluated by wearing, or the wearer may make an overall evaluation of the garment; examples are given in Table B.3 to Table B.6.

Recovery or inspection of questionnaires and specimens. When the trial is complete, the questionnaires, the wearer records and the evaluation forms are collected, and the specimens may be collected as well if required. The state of the specimens is examined and compared with the evaluation results. Where the two differ greatly, the trial organizer shall interview the wearer and find the reason for the difference. The reasons generally include a different expectation of the garment on the part of the wearer, and misuse, abuse or accidental damage of the garment. Where no reason can be found, the trial result of the individual garment may be disregarded.

7 Processing of trial data

After the wear trial has ended, the trial organizer collects the wearers' questionnaires and evaluation records and analyses and screens them.

During analysis and screening it is a normal thing for an individual result to differ greatly from the others. If this occurred in a routine laboratory test, the result could be discarded statistically as an abnormal value.

Where a specific reason for the difference can be found, the abnormal result shall be included in the report, since it gives useful information about the garment when it is misused or used under improper conditions.

8 Evaluation and analysis of results

Evaluation of a single property. The evaluations made by each wearer of a single property of the garment are collected in order. The trial result is evaluated on grades 1 to 5, and where needed a 100-point scale may be used for a finer score. The arithmetic mean of the grades given by all the wearers is calculated and taken as the evaluation result for that property. Where appropriate, the wear trial result may be compared and analysed against the laboratory test result.

Evaluation of overall performance. The wearer may make an overall evaluation of the performance of the garment, the test result being evaluated on grades 1 to 5, with a 100-point scale for a finer score where needed. Where several groups of properties of the garment can be graded, the weighted mean of all the grades is calculated as required and taken as the result value of the overall performance evaluation. Where the weighted mean is not a whole number, it is rounded to the nearest 0.5 grade and written with a hyphen, for example grade 3-4, and the result values of the individual properties and of the overall