

Fading differences between different batches of DEK blue types in tests according to ISO 105-B06 "Textiles – Tests for colour fastness - Colour fastness and ageing to artificial light at high temperatures: Xenon arc fading lamp test".

Erding 2020-11-12

Based on feedback from users of ISO 105-B06 that DEK Blue Wool Reference Type 6 from different batches has different ΔE values, the DEK has dealt with this topic very intensively.

First of all, it should be noted that all DEK blue types are checked for conformity with the ISO 105-B08 standard before release and delivery. All batches on the market and in our stock comply with this standard. However, when testing according to ISO 105-B08, the exposure conditions according to ISO 105-B02 are applied and not the exposure conditions according to ISO 105-B06 (automotive hot light fastness exposure). The reason for this is that the blue types and ISO 105-B08 were developed at a time when hot exposure was still in the distant future.

All blue types 6 were always dyed with the same dyestuff (CI Acid Blue 23) as prescribed in ISO 105-B02, always using the same dyeing technology on the same woolen base material. However, the dyes used, CI Acid Blue 23, came from different manufacturers (Ciba and Sandoz). After all other possible causes for the different fading behavior (e.g. fluctuations in the water hardness of the process water, etc.) have been checked and excluded by us, we have to assume that the dyes from Ciba and Sandoz are responsible for the different fading behavior during hot exposure, despite the same chemical structure.

In addition, we now also know that ISO 105-B08 is suitable for checking conformity to the standard under exposure conditions according to ISO 105-B02, but not for checking conformity to the standard under exposure conditions according to ISO 105-B06.

Therefore, we have now started a further comprehensive investigation program in November 2020, as a result we want to find a solution to the problem of different fading behavior. Participants in this investigation program are well-known test institutes, equipment manufacturers and users of ISO 105-B06. The first stage is to be completed by the end of January 2021. We will inform you as soon as corresponding results are available.



Alexander Dietel
President



Andreas Metzger
Managing Director