

1.6.8. QUANTITATIVE ESTIMATION OF INDICATOR ABILITY OF LIQUID PENETRANTS USING PATTERN ANALYSIS OF INDICATIONS ON TEST BODIES

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In the paper, the software SPECTR PMS, is considered. The software is intended for comparison of sensitivity using quantitative estimation of contrast, color and brightness characteristics of indications of different color and fluorescent sets for liquid penetrant testing and magnetic particle inspection.

Algorithms and criteria for such estimations are proposed as well as the quantity characterizing sharpness degree of indications.

The software SPECTR PMS is the part of hardware and software complex for the analysis of PT and MPI indications to estimate the sensitivity of penetrant sets and MPI expendables.

Using test body according to JIS Z 2343, SPECTR PMS software allows to compare the sensitivity of two different penetrant sets within one sensitivity level; using test body MTU Nr 3 the same is possible for MPI expendables.

In the future SPECTR PMS software will be amplified with the possibility of the analysis of indication on penetrant system monitor like PSM-5 with issue of the report on possible failures in the automated PT line.