Designation: D913 – 10

StandardPractice for Evaluating Degree of Traffic Paint Line Wear[1]

This standard is issued under the fixed designation D913; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers the evaluation of degree of resistance to wear that may occur with traffic paints (traffic markings) in road tests (see Practice D713) or in actual service, using photographic standards for comparative evaluation.

1.2 *This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]
D713 Practice for Conducting Road Service Tests on Fluid Traffic Marking Materials

2.2 *ASTM Adjuncts:*
Glossy Prints of Photographic Reference[3]

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *failure, described by these photographic references, n*—that condition manifested in traffic paint by actual detachment of sections of the film from its substrate or erosion of sections of paint down to the substrate.

3.1.1.1 *Discussion*—The degree of resistance to failure is judged by the amount of substrate that is covered.

3.1.2 *substrate, n*—the roadway surface or previously applied traffic marking over which the traffic paint being tested was applied

4. Significance and Use

4.1 This practice is designed to evaluate the resistance to wear of a traffic paint. It must be remembered that a high degree of performance of paint applied to a bare road surface may not guarantee similar results when the same paint is applied over old paint lines.

5. Type of Failure

5.1 The failure as described in Section 3 does not presume any specific mechanism, and all areas where the substrate is visible shall be considered a failure.

6. Use of Photographic References

6.1 The photographic references[3] that are part of this practice are representative of the degrees of resistance to wear of stripes of traffic paint. The examples shown in Fig. 1 and Fig. 2 are for illustration purposes only and should not be used for evaluation.

6.1.1 The degree of resistance to wear is likely to vary over any given area. It is therefore preferable to use one of the following grading methods:

6.1.1.1 Select an area as representative and base the relative performance of the stripe on this area or

6.1.1.2 Grade segments of the stripe and average these gradings.

6.1.2 The photographic references (Note 1) represent four degrees (97 %, 92 %, 77 %, 60 %) of resistance to wear. Substrate revealed by failure is readily discernible with the naked eye.

NOTE 1—The photographic references are representative of stripes of traffic paints. The percentage of surface covered is shown on each reference.

7. Procedure

7.1 Compare the representative areas of the traffic paint stripes with the photographic references and estimate the percent of intact film.

8. Report

8.1 Report the mean and range of the substrate coverage estimations, if appropriate.

9. Keywords

9.1 resistance to wear; traffic paint

[1] This practice is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.44 on Traffic Coatings.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Full-size (8 by 10-in. (203 by 254-mm)) glossy prints of the photographic reference showing degrees of chipping are available from ASTM International Headquarters. Order Adjunct No: ADJD0913.