



Designation: D 913 – 03

Standard Test Method for Evaluating Degree of Resistance to Wear of Traffic Paint¹

This standard is issued under the fixed designation D 913; 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 approval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This test method covers the evaluation of degree of resistance to wear that may occur with traffic paints in road tests (see Practice D 713) 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:*

D 713 Practice for Conducting Road Service Tests on Fluid Traffic Marking Materials²

3. Description of Term Specific to This Standard

3.1 *failure, described by these reference standards*—that condition manifested in traffic paint by actual detachment of entire sections of the film from its substrate or from paint previously applied. The degree of resistance to failure is judged by the amount of substrate that is covered.

4. Significance and Use

4.1 This test method 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 Reference Standards

6.1 The photographic reference standards³ that are part of this test method are representative of the degrees of resistance to wear of stripes of traffic paint. The examples shown in Fig. 1 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 necessary to use one of the following grading methods:

6.1.1.1 Select an area as representative and base the rating 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 reference standards (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 reference standards are representative of stripes of traffic paints. The percentage of surface covered is shown on each reference standard.

7. Procedure

7.1 Compare the representative areas of the traffic paint stripes with the photographic reference standards 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 test method 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 *Annual Book of ASTM Standards*, Vol 06.02.

³ Full-size (8 by 10-in. (203 by 254-mm)) glossy prints of the photographic reference standards showing degrees of chipping are available from ASTM International Headquarters. Order Adjunct ADJD0913.