



REMR TECHNICAL NOTE EM-PC-1.2
PAINT TEST KIT FOR FIELD SCREENING OF
PAINTS



PURPOSE: To provide a means by which field painting inspectors can easily screen liquid paint for suitability of application and performance prior to application.

BACKGROUND: A study has shown that most non-high-performance paints used by the Army are not tested prior to application. These paints are common interior and exterior latex and oil base materials and constitute a large volume of the paint used by the Government. Reasons for not testing include cost of testing and time required to receive the results from a testing laboratory.

DESCRIPTION: A kit has been developed to enable the field inspector to perform a number of tests on a liquid paint sample. The results provide basic information about the paint such as drying time, hiding power, appearance, gloss, adhesion, and cleanability. Test results are compared with standards in a manual that is part of the kit.

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The kit is packaged in a briefcase and is self-contained except for cleanup solvents and paper towels. Fourteen tests can be performed on each paint sample. Some tests provide results the same day or the following day, whereas others require the paint to dry for a week before results can be obtained. Supplies exist in the kit to test 40 samples, at which time replacement material must be obtained locally or from specified supply houses.

A field evaluation has been conducted on over 100 of the kits by Facility Engineers offices. Responses have been very positive. Benefits cited include savings of testing costs and more efficient use of testing funds as well as the ease of use of the kit.

The kit is marketed commercially by the Nucleus Corporation, 25131 Dequindre St., Madison Heights, MI 48071, phone 313-399-3610. The price in 1986 was \$359 FOB Madison Heights.

APPLICATION: It is suggested that installations that use numerous batches of common paints and do not normally send every batch to a laboratory for testing consider the purchase and use of the Paint Test Kit as a screening device for these paints.

LIMITATIONS: The kit is intended to be used as a routine screening device; paints that do not appear to be equal to a standard should be sent to a laboratory for more sophisticated testing. It should be stressed that the kit can be used only for screening of common latex and oil-based paints and is not appropriate for use with vinyls, epoxies, urethanes, and other high-performance coatings used for the protection of hydraulic structures.

REFERENCE: Beitelman, A., and others. 1986. "Development of a Portable Test Kit for Field-Screening Paints," Technical Report M-86-06, US Army Construction Engineering Research Laboratory, Champaign, IL.