



Standard Practice for Evaluating the Efficiency of Chemical Removers for Organic Coatings¹

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1. Scope

1.1 The practice evaluates the effectiveness of coatings removers used on clear or pigmented coatings as applied to wood and metal.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.3 *This standard does not purport to address the safety concerns, 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 609 Practice for Preparation of Cold-Rolled Steel Panels for Testing Paint, Varnish, Conversion Coatings, and Related Coating Products²

D 823 Practices for Producing Films of Uniform Thickness of Paint, Varnish, and Related Products on Test Panels²

D 3924 Specification for Standard Environment for Conditioning and Testing Paint, Varnish, Lacquers, and Related Materials²

E 145 Specification for Gravity-Convection and Forced-Ventilation Ovens³

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *coatings remover, n*—a product that is formulated for the removal of paint, varnish, lacquer, shellac, or polyurethane top coats, or related coatings, or both.

4. Summary of Practice

4.1 Test panels are coated and force dried. The coatings remover is applied with a brush and the loosened coating is

lifted with a plastic scraper after a specified time. Coatings removal efficiency is determined and recorded using a rating scheme of 5 to 0.

5. Significance and Use

5.1 Old coatings, such as paint or related coatings, may have to be removed from a surface before successful recoating can occur. This practice can be used to test the coatings removal efficiency of products designed for such use.

6. Apparatus

6.1 *Forced Draft Oven, Type IB*, in accordance with Specification E 145.

6.2 *Paint Brush*, containing nylon/polyester bristles.

6.3 *Plastic Paint Scraper*.

6.4 *Very Fine Garnet Abrasive-Type Sandpaper*, 240 to 220 grade.

6.5 *Stopwatch*.

7. Testing Materials

7.1 *Finishes*—It is recommended to test coatings removers on a variety of finishes such as latex enamel, alkyd enamel, polyurethane, varnish, shellac and nitrocellulose lacquer, or as agreed upon between the purchaser and the seller.

7.2 Wood test panels of solid wood or wood laminate such as birch plywood, fir, pine, oak or walnut. Smooth sawn panels of dimensions not less than 300 by 300 mm (12 by 12 in.) and 8-mm ($\frac{5}{16}$ -in.) thick.

7.3 Steel test panels with dimensions of 150 by 300 mm (6 by 12 in.) and 0.8-mm (0.032-in.) thick.

8. Panel Preparation

8.1 *Wood Panel Preparation*—Store the wood panels for a least 6 days under standard conditions as specified in Specification D 3924.

8.2 Sand the panels lightly with sandpaper as defined in 6.4 and wipe them clean of debris.

8.3 Coat one side of a panel with a test coating by any method specified in Practices D 823 to ensure uniform film thickness, using the manufacturer's recommended coverage rate. Allow the coating to dry overnight under standard conditions as specified in Specification D 3924.

¹ This practice is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, and Materials, and Applications and is the direct responsibility of Subcommittee D01.42 on Architectural Coatings.

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² *Annual Book of ASTM Standards*, Vol. 6.01.

³ *Annual Book of ASTM Standards*, Vol. 14.04.