

Advisory Bulletin



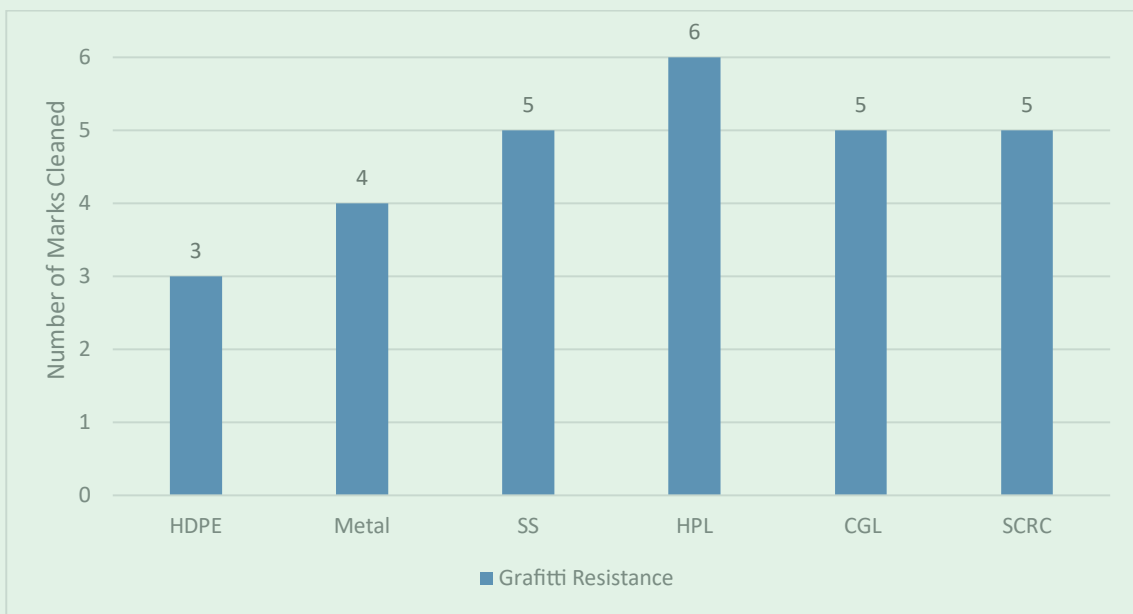
TB-80 Graffiti-Resistance of Various Toilet Partition Materials

INDEPENDENT LABORATORY TESTING

Samples of six different toilet partition materials¹ including [High-Density Polyethylene (HDPE)², Powder-Coated Metal (Metal), Stainless Steel (SS), High Pressure Laminate (HPL), Compact Grade Laminate, Black-Core (CGL), and Solid Color Reinforced Composite (SCRC)] were sent to an independent laboratory for testing and evaluation to determine the relative graffiti-resistance of these materials. The tests were performed in accordance with American Society for Testing and Material ASTM D 6578-08 “Standard Practice for Determination of Graffiti-Resistance” Section 9, Graffiti Removal Procedure Using Manual Solvent Rubs. This procedure prepares samples of each material with marks from a minimum of five different staining agents and allows these to set for at least 24 hours. The standard evaluates a test specimen’s graffiti-resistance by progressively cleaning the marks with more aggressive cleaning methods³ and determining the first method that completely cleans the test specimen. A full description of the test is available from ASTM.

Bobrick selected this ASTM standard because, in our opinion, this standard provided an objective, repeatable, and comparable procedure with which to analyze the relative graffiti-resistance properties and ease of cleaning different types of toilet partition materials. In the tests conducted, six different marking agents were used.⁴ A comparison of the cleanability results can be used to evaluate the relative graffiti-resistance of different toilet partition materials. A copy of the independent laboratory test result is available upon request.

RESULTS OF TEST



Source: Data is from test conducted by an independent laboratory in November, 2018 for all materials except HPL; HPL was tested in February 2019.

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Marking Agent ⁴	CLEANABILITY LEVELS ⁵					
	HDPE	Metal	SS	HPL	CGL	SCRC
1. Permanent Ink Marker, Blue	Level 5	Not Cleanable, Level 1	Level 8	Level 8	Level 8	Level 8
2. Acrylic Spray Paint, Red	Not Cleanable, Level 4	Level 5	Level 6	Level 6	Not Cleanable, Level 3	Not Cleanable, Level 1
3. Alkyd Spray Paint, Red	Not Cleanable, Level 3	Level 5	Level 5	Level 6	Level 6	Level 5
4. Wax Crayon, Blue	Level 7	Level 10	Level 8	Level 10	Level 8	Level 7
5. Ballpoint Pen, Black	Not Cleanable, Level 3	Not Cleanable, Level 2	Not Cleanable, Level 4	Level 7	Level 8	Level 8
6. Water Based Ink Marker, Black	Level 10	Level 9	Level 9	Level 9	Level 9	Level 9
TOTAL MARKS CLEANED	3 of 6 Cleaned	4 of 6 Cleaned	5 of 6 Cleaned	6 of 6 Cleaned	5 of 6 Cleaned	5 of 6 Cleaned

CONCLUSION

Of the materials tested, High Pressure Laminate (HPL), Compact Grade Laminate, Black-Core (CGL), Solid Color Reinforced Composite (SCRC) and Stainless Steel (SS) exhibited the best graffiti-resistance properties of the toilet partition materials tested.

Notes:

¹Material samples were 12" x 12" panels

²HDPE tested was NFPA 286 compliant as required for toilet partitions by the ICC and NFPA model codes

³ASTM 6578-00 outlines the sequence of cleaning procedures for the test samples as follows:

Level Rating Scale

- 10 Cleanable with a dry rag
- 9 Cleanable with detergent
- 8 Cleanable with IPA
- 7 Cleanable with mineral spirits
- 6 Cleanable with xylene
- 5 Cleanable with MEK
- 4 Not cleanable, gloss loss
- 3 Not cleanable, slight shadow
- 2 Not cleanable, heavy shadow
- 1 Not cleanable, shadow and gloss loss

The material's graffiti-resistance designation level for each marking agent is assigned by the first cleaning method that removes the mark. A "not cleanable" designation is assigned if the graffiti mark cannot be removed after all of the prescribed cleaning procedures are used.

⁴A total of six (6) marking agents used in the laboratory tests

- Permanent Ink Marker, Blue*
- Acrylic Spray Paint, Red*
- Alkyd Spray Paint, Red*
- Wax Crayon, Blue*
- Ballpoint Pen, Black*
- Water Based Ink Marker, Black*

⁵Cleanability Levels refer to minimum cleaning method necessary to obtain a visually clean surface.