

## TEST SCOPE

To determine the resistance of UV cured powder coating on MDF to common household and commercial liquid cleaning products\* through cleaning.

Evaluation of Coating Resistance to Common Household and Commercial Liquid Cleaning Products						
Scrub Test 10 Cleanings: Test Specimen ID ZP18L04R1 Smooth White UV Powder Coating						
Reagent	Water <sup>1</sup>	Bleach Solution (2% v/v) <sup>2</sup>	Isopropanol Solution (70% v/v) <sup>3</sup>	Clorox Commercial Solutions® Formula 409 <sup>4</sup>	Ethanol Solution (70% v/v) <sup>5</sup>	Troy Chemical Incorporated, Troy 1609 <sup>6</sup>
*Initial Film Thickness, mils	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5
*Final Film Thickness, mils	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5
*Initial Gloss, 60° GU	85-90	86-90	88-90	86-90	88-90	86-90
*Final Gloss, 60° GU	86-90	86-90	88-90	85-90	89-90	86-90
*Initial Pencil Hardness	H	H	H	H	H	H
*Final Pencil Hardness	H	H	H	H	H	H
Color Transfer to Cotton Cloth yes/no	No	No	No	No	No	No
Coating Appearance Comments After Testing	No observable change	No observable change	No observable change	No observable change	No observable change	No observable change

## TEST METHOD

Procedure has been adapted and modified from reference NEMA LD 3-2000 method 3.4 Cleanability / Stain Resistance, 3.4.5

25 cycles will be considered 1 cleaning for the purpose of this test procedure.

## TEST RESULTS

The MDF substrate performed as follows:

- NO observable appearance change
- NO color transfer to cloth
- NO change in pencil hardness
- NO change in film build
- NO change in gloss loss

Detailed results are available upon request.

\*Active Ingredients: 1: N/A 2: Sodium Hypochlorite 3: Isopropyl Alcohol 4: n-Alkyl (40% C12, 50% C14, 10% C16) dimethyl benzyl ammonium chloride - (Quaternary Ammonium) 5: Ethyl Alcohol 6: Alkyl (60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride & Alkyl (68% C12, 32% C14) dimethyl ethylbenzyl ammonium chloride - (Quaternary Ammonium)

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