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**HomeFree Paint Specifications**

Version 1.1 - July 2020

**How to use this document**

HBN developed specification language to provide project teams with an actionable and practical resource for incorporating safer materials into project specifications. This editable Word document is organized according to MasterFormat® standard divisions. Project teams can copy and paste from the HomeFree Specifications and make modifications as needed to meet specific project needs. Notes with additional context about the healthier material guidance are provided in red text. These notes are provided to guide your understanding of the healthier material specifications.

**About the HomeFree Specifications**

The HomeFree Specifications are primarily based on our Hazard Spectrums, including materials that fall into the preferred categories (green, light green, or yellow). The Spectrums incorporate HBN’s materials research about chemicals of concern that are commonly present or used in the manufacturing process of different types of products. Only product types that were researched by HBN and are included in the scope of the Hazard Spectrums were considered in the specifications. For accessory products, some general material recommendations may also be included, such as meeting South Coast Air Quality Management District (SCAQMD) VOC limits. In addition, some common green building requirements such as FSC-certified wood and regionally sourced materials are included for ease of use.

The specifications include examples of products that meet the requirements for a specific category on the Hazard Spectrum. These products are included for illustrative purposes and their inclusion is not an endorsement or certification of products. As noted above, the Spectrums are based on HBN’s research about chemicals of concern that are commonly present or used in the manufacturing process of this product type. The contents of specific manufacturer products can vary widely within a product type.

 HBN recommends preferring products with content transparency through Health Product Declarations (HPDs) or Declare Labels. When considering example products for inclusion in the specifications, we prioritized those with content transparency over those without. For some categories, additional products without content transparency were included to expand options within the specification. Products that had an HPD or Declare Label at the time of review are indicated in bold text in the HomeFree Specifications. Additionally, nationally available products were prioritized before locally available products within the HomeFree Specifications. Products were determined to meet our requirements using publicly available information, manufacturer provided information, or a combination of the two. Note that not all products within a product line will necessarily comply, and there are likely additional products available that meet the HomeFree recommendations.

The HomeFree Specifications were developed with the assistance of Anne Hicks Harney at Long Green Specs.

**Terms of Use**

HBN provides this specification document free of charge, and grants you a limited right to use, download, edit, print, and reproduce this specification document solely for your internal, personal, and non-commercial use. Any commercial use of this specification document, including, without limitation, any sale or license thereof, or posting to another website is prohibited.

**About HBN and HomeFree**

[Healthy Building Network’s](https://healthybuilding.net/) mission is to advance human and environmental health by improving hazardous chemical transparency and inspiring product innovation. We pursue our mission on three programmatic fronts — independent research, powerful data tools, and capacity-building education — each of which is designed to provide actionable ideas and information that improve health for everyone. HBN’s [HomeFree](https://homefree.healthybuilding.net/) is a national initiative supporting leaders in affordable housing who are improving human health by using less toxic building materials. The goals of HomeFree are to raise awareness of toxic building materials and their associated health hazards, build the capacity of affordable housing practitioners to make informed decisions, and transform the current practice of affordable housing products specified to healthier options for everyone.

See the HomeFree website for more information: https://homefree.healthybuilding.net/

**Specification sections in this document:**

09 91 23 Interior Painting

[GS-11 Certified, Very Low VOC Content and Low VOC Emissions](#DarkGreen) *(Green on Hazard Spectrum)*

[APE-free, Low VOC Content, and Low VOC Emissions](#LightGreen) *(Light Green on Hazard Spectrum)*

[Low VOC Content](#Yellow) *(Yellow on Hazard Spectrum)*

**References**

* HomeFree Online Courses (including *Why Materials Matter* and *Selecting Healthier Paint with HomeFree*):

<https://homefree.healthybuilding.net/education>

* HomeFree Paints by Type Hazard Spectrum:

<https://homefree.healthybuilding.net/products/15-paints-by-type-hazard-spectrum>

Change Log:

v1.1: Updated transparency language to include “characterized and screened” for consistency with programs including LEED and Enterprise Green Communities, and a preference for “characterized, screened, and identified.” Added additional context around transparency documents in the red text. Updated APE-free language to align with information that is verifiable via HPD or Declare Label. Removed paints that contain PVC. Updated some naming and paint placement for consistency and accuracy.

GS-11 Certified, Very Low VOC Content, and Low Emissions

*(Green on the* [*HomeFree Hazard Spectrum*](https://homefree.healthybuilding.net/products/15-paints-by-type-hazard-spectrum)*)*

SECTION 09 9123

INTERIOR PAINTING

*The average person spends up to 90% of their time indoors. Most people think that chemicals used in building products are strictly regulated or tested for their impacts on human health, but that is not the case. In fact, it is difficult to get clear and reliable information about product ingredients and their potential health impacts. Buildings, both old and new, can contain chemicals of concern. From lead poisoning to asthma, our health can be impacted by the materials used in our buildings. This section includes requirements that align with the healthier material guidance of Healthy Building Network (HBN)'s HomeFree, to help ensure that less toxic products are used. See the HomeFree website for more information: https://homefree.healthybuilding.net/.*

1. GENERAL
   * + 1. REFERENCE STANDARDS
          1. General: Comply with the applicable provisions of the referenced standards except as modified by governing codes and the Contract Documents. Where a recommendation or suggestion occurs in the referenced standards, such recommendation or suggestion shall be considered mandatory. In the event of conflict of referenced standards and this specification or within the standards themselves, the more stringent standard or requirement shall govern.

Rule 1113 - "Architectural Coatings": South Coast Air Quality Management District (SCAQMD), State of California <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf>

Green Seal Paint Standard GS-11, Green Seal*,* Inc., Washington, DC. <https://greenseal.org/wp-content/uploads/2018/10/GS-11_Ed3-2_Paints_Coatings_Stains_and_Sealers.pdf>

* + - 1. ACTION SUBMITTALS
         1. Sustainable Design Submittals:

[Product Data](http://www.arcomnet.com/sustainable_design.aspx?topic=14):

For paints and coatings, indicating compliance with General Emissions Evaluation and VOC Content Requirements for Wet Applied Products.

For interior paints, indicating compliance with Paint Content Restrictions.

Building Product Disclosure Requirements: To encourage the use of building products that are working to minimize their environmental and health impacts, preference will be given to products with publicly available information:

Material Ingredients Documentation demonstrating the chemical inventory of the product to at least 0.1% (1,000 ppm) with all content characterized and screened.

[Product Certificates](http://www.arcomnet.com/sustainable_design.aspx?topic=8): For regional materials, indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include distance to Project.

1. PRODUCTS
   * + 1. MANUFACTURERS
          1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

Benjamin Moore & Co.

* + - 1. PAINT, GENERAL
         1. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."

*GreenSeal-11 (GS-11) is a third-party certification that includes chemical restrictions that go a long way to help ensure healthier paints. The GS-11 standard (edition 3.2) prohibits the use of specific substances, including: preservatives that emit formaldehyde into the paint over time, heavy metals such as lead and mercury, and any chemical or material which is considered a carcinogen, mutagen, reproductive toxicant, hazardous air pollutant, or ozone depleting substance. GS-11 also prohibits alkylphenol ethoxylates (APEs) – see note below on APEs.*

* + - * 1. Provide paint products that are certified to Green Seal Standard GS-11 (Paints, Coatings, Stains and Sealers), edition 3.2.
        2. Material Compatibility:

Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.

For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

*HBN recommends preferring products that have documentation publicly disclosing their chemical content. We believe you have a right to know what’s in the materials in your buildings. As do all of those responsible for the design, construction, and operation of buildings have a right to know, and a responsibility to avoid, known and potential hazards to building occupants, workers, and fenceline communities. More information on the importance of content transparency can be found* [*here*](https://homefree.healthybuilding.net/transparency)*.*

*A threshold of 1,000 parts per million (ppm) or 0.1% means that any chemical present in the product at 0.1% or greater, must be listed on the disclosure. A threshold of 100 ppm or 0.01% means that any chemical present in the product at 0.01% or greater must be listed on the disclosure. The 100 ppm threshold provides greater resolution, giving a more complete picture of the product content. An HPD that is "characterized" and "screened" will be marked as such on the first page. In order to be designated as characterized, the role and weight percent of all content present at or above the indicated threshold, must be provided. To be considered screened, that content must be screened against the HPD priority hazard lists for any know hazards. If "identified" is marked, that means that additionally, all substances are disclosed by name and identifier (no chemical identities are held proprietary). A Declare Label that is designated as "Red List Free" or "Declared" is considered to be characterized and screened to a 100 ppm threshold. A Declare Label with a status of "LBC Red List Approved" or "LBC Compliant" that has a minimum disclosure threshold of 99.9% of the product content is considered characterized and screened to 1,000 ppm. This means that the sum of undisclosed proprietary content cannot exceed 0.1%. You can calculate the total proprietary content by adding together the percentages in parentheses on the Declare Label. While products that have disclosures to 100 ppm, with all content characterized, screened, and identified, and verified through HPD or Declare's third-party verification program are most preferred, we acknowledge that this is a very high bar to reach and encourage preference for products that have disclosures along the continuum.*

* + - * 1. Provide Material Ingredients Documentation demonstrating the chemical inventory of the product to at least 0.1% (1,000 ppm) with all content characterized and screened. Documentation demonstrating the chemical inventory to at least 0.01% (100 ppm) with all content characterized, screened, and identified, and/or verified through the HPD or Declare Label third-party verification program is preferred.

For each product, provide copies of all available current product disclosures from the following list:

Health Product Declaration (HPD).

Declare Label.

*Volatile organic compounds (VOCs) are the most well-known health-related issue related to paint. VOCs contribute to smog formation, and some of these chemicals may also be directly hazardous to human health. Both the base and colorants can impact the VOC content of a paint, so these specifications include requirements for both.*

*Some volatile chemicals that may be emitted from paints are not captured in VOC content testing, and some of these chemicals are captured by emissions testing. Emission testing per California Department of Public Health (CDPH) Standard Method for Testing and Evaluation of VOC Emissions (formerly called California 01350) sets limits on some specific high concern chemical emissions. Programs that certify the CDPH Standard Method for Testing VOC Emissions include: Master Painters Institute (MPI) X-Green, GreenWise Gold, GreenGuard Gold, SCS Indoor Advantage Gold, and Berkeley Analytical ClearChem.*

* + - * 1. Low-emitting requirements – Paints and Coatings

General Emissions Evaluation: Interior products must be tested and determined compliant in accordance with the California Department of Public Health (CDPH) Standard Method v1.1–2010 or the most current version, using the applicable exposure scenario.

Residential scenario is preferred.

VOC Content Requirements for Wet Applied Products:

All paints and coatings wet-applied on site must meet the applicable VOC limits of the South Coast Air Quality Management District (SCAQMD) Rule 1113, effective February 5, 2016.

All interior latex paints must contain no more than 10 g/L of VOCs in the bases, and colorants that do not increase the VOC content of the base paint when tinted.

*Alkylphenol ethoxylates (APEs) are one of several groups of chemicals called surfactants that are added to paints to help the components mix together well. APEs are believed to be endocrine disruptors, meaning that they may interfere with hormones in the body. They can also break down into chemicals with similar hazard concerns. These breakdown products are known to persist in the environment (meaning that people can be exposed to them for a long time).*

* + - * 1. Paint Content Restrictions:

All interior latex paints and coatings must be free of alkylphenol ethoxylates (APEs). This means paint products do not contain intentionally added or unintentionally added/residual APEs (above 100 ppm) using, at a minimum, the list of CAS#s in Pharos: <https://pharosproject.net/chemicals/2089943#hazards-panel>.

*Recycled paints are made by blending latex paints recovered though household hazardous waste collection programs with virgin ingredients and other materials. VOC content can be high, and testing for heavy metals such as lead (which have multiple hazards) does not appear to be a standard practice. These paints usually are less expensive than non-recycled paints, but are more appropriate for exterior projects like covering up graffiti than interior applications.*

*Some antimicrobials may be necessary as preservatives, but these merely protect the product from degradation and do not provide a health benefit. Products marketed as being “antimicrobial” and having a health benefit may contain additional antimicrobials beyond those needed for preservation. These products have not been shown to provide any actual health benefit. Added antimicrobials, which are often hazardous, can migrate out of products and end up in the dust of interior spaces where people can become exposed.*

* + - * 1. Additional Restrictions and Requirements:

Recycled paint products should not be used.

Antimicrobial products should not be used. Antimicrobials added to materials or products for the sole purpose of preserving the product are exempt from this restriction.

Provide products manufactured and extracted within 100 miles of the project site whenever possible.

* + - 1. INTERIOR ARCHITECTURAL PAINTS
         1. VOC Limits

The volatile organic compound (VOC) content of all field-applied architectural paints, used on the interior walls and ceilings of this Project shall not exceed the limits defined in below:

Paints

Flat 10

Non-Flat 10

Primers 10

Paint Colorants do not increase the VOC content of the base paint when tinted.

1. EXECUTION
   * + 1. INTERIOR PAINTING SCHEDULE

*Below are example products that met the HomeFree healthier material guidance at the time the HomeFree Specifications were created. Products were determined to meet our requirements using publicly available information, manufacturer provided information, or a combination of the two. These products are included for illustrative purposes, and their inclusion is not an endorsement or certification of the products.*

*Products in* ***bold*** *had one of the following material ingredient transparency labels with content characterized and screened to at least 1,000 ppm at the time the HomeFree Specifications were created:*

* *Health Product Declarations (HPDs) — HPDs use a standard reporting format for disclosing a product’s contents and associated health hazards. They are an inventory tool and do not provide explicit judgement on safer products. Products that currently comply with this standard can be found* [*here*](https://hpdrepository.hpd-collaborative.org/Pages/Results.aspx)*.*
* *Declare Labels — Declare Labels disclose what a product is made of, where it comes from, and where it goes at the end of its life. Declare Labels also indicate whether products contain chemicals on the Living Building Challenge Red List. Products that currently comply with this standard can be found* [*here*](https://living-future.org/declare/)*.*
  + - * 1. Concrete Substrates, Nontraffic Surfaces:

low odor/VOC Latex System MPI INT 3.1M:

Prime Coat: Primer sealer, interior, MPI #50, 50 X-Green, 149, 149 X-Green.

**Benjamin Moore® Natura® Waterborne Primer 511.**

Intermediate Coat: Interior,matching topcoat.

Topcoat: Flat (MPI Gloss Level 1) MPI # 53, X-Green 53, 143, X-Green 143

**Benjamin Moore® Natura® Interior Waterborne Flat Finish 512.**

Topcoat: Low sheen (MPI Gloss Level 2) MPI# 44/X-Green 44, 144/X-Green 144

**Benjamin Moore® Natura® Interior Waterborne Eggshell Finish 513**

* + - * 1. Gypsum Board and Plaster Substrates:

Institutional Low-Odor/VOC Latex System MPI INT 9.2M:

Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #50, 50 X-Green, 149, 149 X-Green.

**Benjamin Moore® Natura® Waterborne interior Primer 511.**

Intermediate Coat: matching topcoat.

Topcoat: flat (MPI Gloss Level 1), MPI #53, 53 X-Green, 143, 143 X-Green.

**Benjamin Moore® Natura® Interior Waterborne Flat Finish 512.**

Topcoat: Latex, Eggshell (MPI Gloss Level 2), MPI #44, 44 X-Green, 144, 144 X-Green.

**Benjamin Moore® Natura® Interior Waterborne Eggshell Finish 513.**

Topcoat: Semi-Gloss (MPI Gloss Level 4), MPI #43, 43 X-Green, 140, 140 X-Green, 146, 146 X-Green.

**Benjamin Moore® Natura® Interior Waterborne Semi-Gloss Finish 514.**

END OF SECTION

APE-Free, Low VOC Content, and Low Emissions

*(Light Green on the* [*HomeFree Hazard Spectrum*](https://homefree.healthybuilding.net/products/15-paints-by-type-hazard-spectrum)*)*

SECTION 09 9123

INTERIOR PAINTING

*The average person spends up to 90% of their time indoors. Most people think that chemicals used in building products are strictly regulated or tested for their impacts on human health, but that is not the case. In fact, it is difficult to get clear and reliable information about product ingredients and their potential health impacts. Buildings, both old and new, can contain chemicals of concern. From lead poisoning to asthma, our health can be impacted by the materials used in our buildings. This section includes requirements that align with the healthier material guidance of Healthy Building Network (HBN)'s HomeFree, to help ensure that less toxic products are used. See the HomeFree website for more information: https://homefree.healthybuilding.net/.*

1. GENERAL
   * + 1. REFERENCE STANDARDS
          1. General: Comply with the applicable provisions of the referenced standards except as modified by governing codes and the Contract Documents. Where a recommendation or suggestion occurs in the referenced standards, such recommendation or suggestion shall be considered mandatory. In the event of conflict of referenced standards and this specification or within the standards themselves, the more stringent standard or requirement shall govern.

Rule 1113 - "Architectural Coatings": South Coast Air Quality Management District (SCAQMD), State of California <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf>

* + - 1. ACTION SUBMITTALS
         1. Sustainable Design Submittals:

[Product Data](http://www.arcomnet.com/sustainable_design.aspx?topic=14):

For paints and coatings indicating compliance with General Emissions Evaluation and VOC Content Requirements for Wet Applied Products.

For interior paints, indicating compliance with Paint Content Restrictions.

Building Product Disclosure Requirements: To encourage the use of building products that are working to minimize their environmental and health impacts, preference will be given to products with publicly available information:

Material Ingredients Documentation demonstrating the chemical inventory of the product to at least 0.1% (1,000 ppm) with all content characterized and screened.

[Product Certificates](http://www.arcomnet.com/sustainable_design.aspx?topic=8): For regional materials, indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include distance to Project.

1. PRODUCTS
   * + 1. MANUFACTURERS
          1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

Benjamin Moore & Co.

Sherwin Williams

* + - 1. PAINT, GENERAL
         1. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
         2. Material Compatibility:

Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.

For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

*HBN recommends preferring products that have documentation publicly disclosing their chemical content. We believe you have a right to know what’s in the materials in your buildings. As do all of those responsible for the design, construction, and operation of buildings have a right to know, and a responsibility to avoid, known and potential hazards to building occupants, workers, and fenceline communities. More information on the importance of content transparency can be found* [*here*](https://homefree.healthybuilding.net/transparency)*.*

*A threshold of 1,000 parts per million (ppm) or 0.1% means that any chemical present in the product at 0.1% or greater, must be listed on the disclosure. A threshold of 100 ppm or 0.01% means that any chemical present in the product at 0.01% or greater must be listed on the disclosure. The 100 ppm threshold provides greater resolution, giving a more complete picture of the product content. An HPD that is "characterized" and "screened" will be marked as such on the first page. In order to be designated as characterized, the role and weight percent of all content present at or above the indicated threshold, must be provided. To be considered screened, that content must be screened against the HPD priority hazard lists for any know hazards. If "identified" is marked, that means that additionally, all substances are disclosed by name and identifier (no chemical identities are held proprietary). A Declare Label that is designated as "Red List Free" or "Declared" is considered to be characterized and screened to a 100 ppm threshold. A Declare Label with a status of "LBC Red List Approved" or "LBC Compliant" that has a minimum disclosure threshold of 99.9% of the product content is considered characterized and screened to 1,000 ppm. This means that the sum of undisclosed proprietary content cannot exceed 0.1%. You can calculate the total proprietary content by adding together the percentages in parentheses on the Declare Label. While products that have disclosures to 100 ppm, with all content characterized, screened, and identified, and verified through HPD or Declare's third-party verification program are most preferred, we acknowledge that this is a very high bar to reach and encourage preference for products that have disclosures along the continuum.*

* + - * 1. Provide Material Ingredients Documentation demonstrating the chemical inventory of the product to at least 0.1% (1,000 ppm) with all content characterized and screened. Documentation demonstrating the chemical inventory to at least 0.01% (100 ppm) with all content characterized, screened, and identified, and/or verified through the HPD or Declare Label third-party verification program is preferred.

For each product, provide copies of all available current product disclosures from the following list:

Health Product Declaration (HPD).

Declare Label.

*Volatile organic compounds (VOCs) are the most well-known health-related issue related to paint. VOCs contribute to smog formation, and some of these chemicals may also be directly hazardous to human health. Both the base and colorants can impact the VOC content of a paint, so these specifications include requirements for both.*

*Some volatile chemicals that may be emitted from paints are not captured in VOC content testing, and some of these chemicals are captured by emissions testing. Emission testing per California Department of Public Health (CDPH) Standard Method for Testing and Evaluation of VOC Emissions (formerly called California 01350) sets limits on some specific high concern chemical emissions. Programs that certify the CDPH Standard Method for Testing VOC Emissions include: Master Painters Institute (MPI) X-Green, GreenWise Gold, GreenGuard Gold, SCS Indoor Advantage Gold, and Berkeley Analytical ClearChem.*

* + - * 1. Low-emitting requirements – Paints and Coatings

General Emissions Evaluation: Interior products must be tested and determined compliant in accordance with the California Department of Public Health (CDPH) Standard Method v1.1–2010 or the most current version, using the applicable exposure scenario.

Residential scenario is preferred.

VOC Content Requirements for Wet Applied Products: All paints and coatings wet-applied on site must meet the applicable VOC limits of the South Coast Air Quality Management District (SCAQMD) Rule 1113, effective February 5, 2016.

*Alkylphenol ethoxylates (APEs) are one of several groups of chemicals called surfactants that are added to paints to help the components mix together well. APEs are believed to be endocrine disruptors, meaning that they may interfere with hormones in the body. They can also break down into chemicals with similar hazard concerns. These breakdown products are known to persist in the environment (meaning that people can be exposed to them for a long time).*

* + - * 1. Paint Content Restrictions:

All interior latex paints and coatings must be free of alkylphenol ethoxylates (APEs). This means paint products do not contain intentionally added or unintentionally added/residual APEs (above 100 ppm) using, at a minimum, the list of CAS#s in Pharos: <https://pharosproject.net/chemicals/2089943#hazards-panel>.

*Recycled paints are made by blending latex paints recovered though household hazardous waste collection programs with virgin ingredients and other materials. VOC content can be high, and testing for heavy metals such as lead (which have multiple hazards) does not appear to be a standard practice. These paints usually are less expensive than non-recycled paints, but are more appropriate for exterior projects like covering up graffiti than interior applications.*

*Some antimicrobials may be necessary as preservatives, but these merely protect the product from degradation and do not provide a health benefit. Products marketed as being “antimicrobial” and having a health benefit may contain additional antimicrobials beyond those needed for preservation. These products have not been shown to provide any actual health benefit. Added antimicrobials, which are often hazardous, can migrate out of products and end up in the dust of interior spaces where people can become exposed.*

* + - * 1. Additional Restrictions and Requirements:

Recycled paint products should not be used.

Antimicrobial products should not be used. Antimicrobials added to materials or products for the sole purpose of preserving the product are exempt from this restriction.

Provide products manufactured and extracted within 100 miles of the project site whenever possible.

* + - 1. INTERIOR COATINGS
         1. VOC Limits

The volatile organic compound (VOC) content of all field-applied coating used on the interior of this Project shall not exceed the limits defined in Rule 1113 - "Architectural Coatings" of the South Coast Air Quality Management District (SCAQMD), of the State of California, Amended February 5, 2016.

The VOC limits defined by SCAQMD are measured in grams per liter (g/L), less water and less exempt compounds.

General: For specified building construction related applications, the allowable VOC content is as follows:

Paints

Flat 50

Non-Flat 50

Primers, Sealers and Undercoaters 100

Paint Colorants 50

1. EXECUTION
   * + 1. INTERIOR PAINTING SCHEDULE

*Below are example products that met the HomeFree healthier material guidance at the time the HomeFree Specifications were created. Products were determined to meet our requirements using publicly available information, manufacturer provided information, or a combination of the two. These products are included for illustrative purposes, and their inclusion is not an endorsement or certification of the products.*

*Products in* ***bold*** *had one of the following material ingredient transparency labels with content characterized and screened to at least 1,000 ppm at the time the HomeFree Specifications were created:*

* *Health Product Declarations (HPDs) — HPDs use a standard reporting format for disclosing a product’s contents and associated health hazards. They are an inventory tool and do not provide explicit judgement on safer products. Products that currently comply with this standard can be found* [*here*](https://hpdrepository.hpd-collaborative.org/Pages/Results.aspx)*.*
* *Declare Labels — Declare Labels disclose what a product is made of, where it comes from, and where it goes at the end of its life. Declare Labels also indicate whether products contain chemicals on the Living Building Challenge Red List. Products that currently comply with this standard can be found* [*here*](https://living-future.org/declare/)*.*
  + - * 1. Concrete Substrates, Nontraffic Surfaces:

low odor/VOC Latex System MPI INT 3.1M:

Prime Coat: Primer sealer, interior, MPI #50, 50 X-Green, 149, 149 X-Green.

**Benjamin Moore® Natura® Waterborne Primer 511.**

**Benjamin Moore® Eco Spec® WB Interior Latex Primer N372.**

**Benjamin Moore® Ultra Spec® 500 Interior Primer N534.**

Sherwin Williams Harmony Interior Latex Primer.

Intermediate Coat: Interior, matching topcoat.

Topcoat: Flat (MPI Gloss Level 1) MPI # 53, X-Green 53, 143, X-Green 143

**Benjamin Moore® Natura® Interior Waterborne Flat Finish 512.**

**Benjamin Moore® Eco Spec® WB Interior Latex Flat Finish N373.**

**Benjamin Moore® Ultra Spec® 500 Interior Flat Finish N536.**

Sherwin Williams Emerald Interior Acrylic Latex Flat.

Sherwin Williams Harmony Interior Acrylic Latex Flat.

Sherwin Williams Duration Home Interior Latex Flat.

Topcoat: Low sheen (MPI Gloss Level 2) MPI# 44/X-Green 44, 144/X-Green 144

**Benjamin Moore® Natura® Interior Waterborne Eggshell Finish 513.**

**Benjamin Moore Ultra Spec 500 Latex Low Sheen N537.**

Sherwin Williams ProMar 200 Zero VOC Interior Latex Low Gloss Eg-Shel.

Topcoat: Eggshell (MPI Gloss Level 3) MPI # 52, X-Green 52, 145, X-Green 145, 139, X-Green 139:

**Benjamin Moore Ultra Spec 500 Latex Eggshell N538.**

**Benjamin Moore® Eco Spec® WB Interior Latex Eggshell Finish N374.**

Sherwin Williams Emerald Interior Acrylic Latex Satin.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Eg-Shel.

Topcoat: Semi-Gloss (MPI Gloss Level 4), MPI #43, #43 X-Green, 140, 140 X-Green, 146, 146 X-Green.

**Benjamin Moore® Super Hide® Zero VOC Interior Semi-Gloss 358.**

Benjamin Moore® Ultra Spec® 500 Interior Semi-Gloss N539.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Semi-Gloss.

Topcoat: Semi-gloss (MPI Gloss Level 5), MPI # 54, X-Green 54, 147, X-Green 147, 141, X-Green 141.

**Benjamin Moore® Eco Spec® WB Interior Latex Semi-Gloss Finish N376.**

Benjamin Moore Ultra Spec 500 Interior Latex Gloss N540.

Sherwin Williams Emerald Interior Acrylic Latex Semi-Gloss.

* + - * 1. Wood Substrates: Wood trim and Architectural woodwork.

Institutional Low-Odor/VOC Latex System MPI INT 6.3V:

Prime Coat: Primer, latex, for interior wood, MPI #6, 39, 137.

Sherwin Williams Multi-Purpose Interior/Exterior Latex Primer.

Intermediate Coat: Interior,matching topcoat.

Topcoat: Flat (MPI Gloss Level 1) MPI # 53, X-Green 53, 143, X-Green 143

**Benjamin Moore® Natura® Interior Waterborne Flat Finish 512.**

**Benjamin Moore® Eco Spec® WB Interior Latex Flat Finish N373.**

**Benjamin Moore® Ultra Spec® 500 Interior Flat Finish N536.**

Sherwin Williams Emerald Interior Acrylic Latex Flat.

Sherwin Williams Harmony Interior Acrylic Latex Flat.

Sherwin Williams Duration Home Interior Latex Flat.

Topcoat: Low sheen (MPI Gloss Level 2) MPI# 44/X-Green 44, 144/X-Green 144

**Benjamin Moore® Natura® Interior Waterborne Eggshell Finish 513.**

**Benjamin Moore Ultra Spec 500 Latex Low Sheen N537.**

Sherwin Williams ProMar 200 Zero VOC Interior Latex Low Gloss Eg-Shel.

Topcoat: Eggshell (MPI Gloss Level 3) MPI # 52, X-Green 52, 145, X-Green 145, 139, X-Green 139:

**Benjamin Moore® Eco Spec® WB Interior Latex Eggshell Finish N374.**

**Benjamin Moore Ultra Spec 500 Latex Eggshell N538.**

Sherwin Williams Emerald Interior Acrylic Latex Satin.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Eg-Shel.

Topcoat: Semi-Gloss (MPI Gloss Level 4), MPI #43, #43 X-Green, 140, 140 X-Green, 146, 146 X-Green.

**Benjamin Moore® Super Hide® Zero VOC Interior Semi-Gloss 358.**

Benjamin Moore® Ultra Spec® 500 Interior Semi-Gloss N539.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Semi-Gloss.

Topcoat: Semi-gloss (MPI Gloss Level 5), MPI # 54, X-Green 54, 147, X-Green 147, 141, X-Green 141.

**Benjamin Moore® Eco Spec® WB Interior Latex Semi-Gloss Finish N376.**

Benjamin Moore Ultra Spec 500 Interior Latex Gloss N540.

Sherwin Williams Emerald Interior Acrylic Latex Semi-Gloss.

* + - * 1. Gypsum Board and Plaster Substrates:

Institutional Low-Odor/VOC Latex System MPI INT 9.2M:

Prime Coat: Primer sealer, interior, MPI #50, 50 X-Green, 149, 149 X-Green.

**Benjamin Moore® Natura® Waterborne Primer 511.**

**Benjamin Moore® Eco Spec® WB Interior Latex Primer N372.**

**Benjamin Moore® Ultra Spec® 500 Interior Primer N534.**

Sherwin Williams Harmony Interior Latex Primer.

Intermediate Coat: Interior,matching topcoat.

Topcoat: Flat (MPI Gloss Level 1) MPI # 53, X-Green 53, 143, X-Green 143

**Benjamin Moore® Natura® Interior Waterborne Flat Finish 512.**

**Benjamin Moore® Eco Spec® WB Interior Latex Flat Finish N373.**

**Benjamin Moore® Ultra Spec® 500 Interior Flat Finish N536.**

Sherwin Williams Emerald Interior Acrylic Latex Flat.

Sherwin Williams Harmony Interior Acrylic Latex Flat.

Sherwin Williams Duration Home Interior Latex Flat.

Topcoat: Low sheen (MPI Gloss Level 2) MPI# 44/X-Green 44, 144/X-Green 144

**Benjamin Moore® Natura® Interior Waterborne Eggshell Finish 513.**

**Benjamin Moore Ultra Spec 500 Latex Low Sheen N537.**

Sherwin Williams ProMar 200 Zero VOC Interior Latex Low Gloss Eg-Shel.

Topcoat: Eggshell (MPI Gloss Level 3) MPI # 52, X-Green 52, 145, X-Green 145, 139, X-Green 139:

**Benjamin Moore® Eco Spec® WB Interior Latex Eggshell Finish N374.**

**Benjamin Moore Ultra Spec 500 Latex Eggshell N538.**

Sherwin Williams Emerald Interior Acrylic Latex Satin.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Eg-Shel.

Topcoat: Semi-Gloss (MPI Gloss Level 4), MPI #43, #43 X-Green, 140, 140 X-Green, 146, 146 X-Green.

**Benjamin Moore® Super Hide® Zero VOC Interior Semi-Gloss 358.**

Benjamin Moore® Ultra Spec® 500 Interior Semi-Gloss N539.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Semi-Gloss.

Topcoat: Semi-gloss (MPI Gloss Level 5), MPI # 54, X-Green 54, 147, X-Green 147, 141, X-Green 141.

**Benjamin Moore® Eco Spec® WB Interior Latex Semi-Gloss Finish N376.**

Benjamin Moore Ultra Spec 500 Interior Latex Gloss N540.

Sherwin Williams Emerald Interior Acrylic Latex Semi-Gloss.

END OF SECTION

Low VOC Content

*(Yellow on the* [*HomeFree Hazard Spectrum*](https://homefree.healthybuilding.net/products/15-paints-by-type-hazard-spectrum)*)*

SECTION 09 9123

INTERIOR PAINTING

*The average person spends up to 90% of their time indoors. Most people think that chemicals used in building products are strictly regulated or tested for their impacts on human health, but that is not the case. In fact, it is difficult to get clear and reliable information about product ingredients and their potential health impacts. Buildings, both old and new, can contain chemicals of concern. From lead poisoning to asthma, our health can be impacted by the materials used in our buildings. This section includes requirements that align with the healthier material guidance of Healthy Building Network (HBN)'s HomeFree, to help ensure that less toxic products are used. See the HomeFree website for more information: https://homefree.healthybuilding.net/.*

1. GENERAL
   * + 1. REFERENCE STANDARDS
          1. General: Comply with the applicable provisions of the referenced standards except as modified by governing codes and the Contract Documents. Where a recommendation or suggestion occurs in the referenced standards, such recommendation or suggestion shall be considered mandatory. In the event of conflict of referenced standards and this specification or within the standards themselves, the more stringent standard or requirement shall govern.

Rule 1113 - "Architectural Coatings": South Coast Air Quality Management District (SCAQMD), State of California <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf>

* + - 1. ACTION SUBMITTALS
         1. Sustainable Design Submittals:

[Product Data](http://www.arcomnet.com/sustainable_design.aspx?topic=14): For paints and coatings indicating compliance with General Emissions Evaluation and VOC Content Requirements for Wet Applied Products.

Building Product Disclosure Requirements: To encourage the use of building products that are working to minimize their environmental and health impacts, preference will be given to products with publicly available information:

Material Ingredients Documentation demonstrating the chemical inventory of the product to at least 0.1% (1,000 ppm) with all content characterized and screened.

[Product Certificates](http://www.arcomnet.com/sustainable_design.aspx?topic=8): For regional materials, indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include distance to Project.

1. PRODUCTS
   * + 1. MANUFACTURERS
          1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

Benjamin Moore & Co.

PPG Architectural Coatings

Sherwin Williams

* + - 1. PAINT, GENERAL
         1. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
         2. Material Compatibility:

Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.

For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

*HBN recommends preferring products that have documentation publicly disclosing their chemical content. We believe you have a right to know what’s in the materials in your buildings. As do all of those responsible for the design, construction, and operation of buildings have a right to know, and a responsibility to avoid, known and potential hazards to building occupants, workers, and fenceline communities. More information on the importance of content transparency can be found* [*here*](https://homefree.healthybuilding.net/transparency)*.*

*A threshold of 1,000 parts per million (ppm) or 0.1% means that any chemical present in the product at 0.1% or greater, must be listed on the disclosure. A threshold of 100 ppm or 0.01% means that any chemical present in the product at 0.01% or greater must be listed on the disclosure. The 100 ppm threshold provides greater resolution, giving a more complete picture of the product content. An HPD that is "characterized" and "screened" will be marked as such on the first page. In order to be designated as characterized, the role and weight percent of all content present at or above the indicated threshold, must be provided. To be considered screened, that content must be screened against the HPD priority hazard lists for any know hazards. If "identified" is marked, that means that additionally, all substances are disclosed by name and identifier (no chemical identities are held proprietary). A Declare Label that is designated as "Red List Free" or "Declared" is considered to be characterized and screened to a 100 ppm threshold. A Declare Label with a status of "LBC Red List Approved" or "LBC Compliant" that has a minimum disclosure threshold of 99.9% of the product content is considered characterized and screened to 1,000 ppm. This means that the sum of undisclosed proprietary content cannot exceed 0.1%. You can calculate the total proprietary content by adding together the percentages in parentheses on the Declare Label. While products that have disclosures to 100 ppm, with all content characterized, screened, and identified, and verified through HPD or Declare's third-party verification program are most preferred, we acknowledge that this is a very high bar to reach and encourage preference for products that have disclosures along the continuum.*

* + - * 1. Provide Material Ingredients Documentation demonstrating the chemical inventory of the product to at least 0.1% (1,000 ppm) with all content characterized and screened. Documentation demonstrating the chemical inventory to at least 0.01% (100 ppm) with all content characterized, screened, and identified, and/or verified through the HPD or Declare Label third-party verification program is preferred.

For each product, provide copies of all available current product disclosures from the following list:

Health Product Declaration (HPD).

Declare Label.

*Volatile organic compounds (VOCs) are the most well-known health-related issue related to paint. VOCs contribute to smog formation, and some of these chemicals may also be directly hazardous to human health. Both the base and colorants can impact the VOC content of a paint, so these specifications include requirements for both.*

*Some volatile chemicals that may be emitted from paints are not captured in VOC content testing, and some of these chemicals are captured by emissions testing. Emission testing per California Department of Public Health (CDPH) Standard Method for Testing and Evaluation of VOC Emissions (formerly called California 01350) sets limits on some specific high concern chemical emissions. Programs that certify the CDPH Standard Method for Testing VOC Emissions include: Master Painters Institute (MPI) X-Green, GreenWise Gold, GreenGuard Gold, SCS Indoor Advantage Gold, and Berkeley Analytical ClearChem.*

* + - * 1. Low-emitting requirements – Paints and Coatings

General Emissions Evaluation: Preference will be given to products that are tested and determined compliant in accordance with the California Department of Public Health (CDPH) Standard Method v1.1–2010 or the most current version, using the applicable exposure scenario.

Residential scenario is preferred.

VOC Content Requirements for Wet Applied Products: All paints and coatings wet-applied on site must meet the applicable VOC limits of the South Coast Air Quality Management District (SCAQMD) Rule 1113, effective February 5, 2016.

*Recycled paints are made by blending latex paints recovered though household hazardous waste collection programs with virgin ingredients and other materials. VOC content can be high, and testing for heavy metals such as lead (which have multiple hazards) does not appear to be a standard practice. These paints usually are less expensive than non-recycled paints, but are more appropriate for exterior projects like covering up graffiti than interior applications.*

*Some antimicrobials may be necessary as preservatives, but these merely protect the product from degradation and do not provide a health benefit. Products marketed as being “antimicrobial” and having a health benefit may contain additional antimicrobials beyond those needed for preservation. These products have not been shown to provide any actual health benefit. Added antimicrobials, which are often hazardous, can migrate out of products and end up in the dust of interior spaces where people can become exposed.*

* + - * 1. Additional Restrictions and Requirements:

Recycled paint products shall not be used.

Antimicrobial products should not be used. Antimicrobials added to materials or products for the sole purpose of preserving the product are exempt from this restriction.

Provide products manufactured and extracted within 100 miles of the project site whenever possible.

* + - 1. INTERIOR COATINGS
         1. VOC Limits

The volatile organic compound (VOC) content of all field-applied coating used on the interior of this Project shall not exceed the limits defined in Rule 1113 - "Architectural Coatings" of the South Coast Air Quality Management District (SCAQMD), of the State of California, Amended February 5, 2016.

The VOC limits defined by SCAQMD are measured in grams per liter (g/L), less water and less exempt compounds.

General: For specified building construction related applications, the allowable VOC content is as follows:

Paints

Flat 50

Non-Flat 50

Primers, Sealers and Undercoaters 100

Paint Colorants 50

1. EXECUTION
   * + 1. INTERIOR PAINTING SCHEDULE

*Below are example products that met the HomeFree healthier material guidance at the time the HomeFree Specifications were created. Products were determined to meet our requirements using publicly available information, manufacturer provided information, or a combination of the two. These products are included for illustrative purposes, and their inclusion is not an endorsement or certification of the products.*

*Products in* ***bold*** *had one of the following material ingredient transparency labels with content characterized and screened to at least 1,000 ppm at the time the HomeFree Specifications were created:*

* *Health Product Declarations (HPDs) — HPDs use a standard reporting format for disclosing a product’s contents and associated health hazards. They are an inventory tool and do not provide explicit judgement on safer products. Products that currently comply with this standard can be found* [*here*](https://hpdrepository.hpd-collaborative.org/Pages/Results.aspx)*.*
* *Declare Labels — Declare Labels disclose what a product is made of, where it comes from, and where it goes at the end of its life. Declare Labels also indicate whether products contain chemicals on the Living Building Challenge Red List. Products that currently comply with this standard can be found* [*here*](https://living-future.org/declare/)*.*
  + - * 1. Concrete Substrates, Nontraffic Surfaces:

low odor/VOC Latex System MPI INT 3.1M:

Prime Coat: Primer sealer, interior, MPI #50, 50 X-Green, 149, 149 X-Green.

**Benjamin Moore® Natura® Waterborne Primer 511.**

**Benjamin Moore® Eco Spec® WB Interior Latex Primer N372.**

**Benjamin Moore® Ultra Spec® 500 Interior Primer N534.**

**PPG Paints; Speedhide zero Interior Latex Sealer, 6-4900XI.**

Sherwin Williams Harmony Interior Latex Primer.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Primer.

Sherwin Williams Quick Dry Interior/Exterior Stain Blocking Primer.

Intermediate Coat: Interior, matching topcoat.

Topcoat: Flat (MPI Gloss Level 1) MPI # 53, X-Green 53, 143, X-Green 143

**Benjamin Moore® Natura® Interior Waterborne Flat Finish 512.**

**Benjamin Moore® Eco Spec® WB Interior Latex Flat Finish N373.**

**Benjamin Moore® Ultra Spec® 500 Interior Flat Finish N536.**

**PPG Paints; Speedhide zero Interior Latex Flat, 6-4110XI.**

Sherwin Williams Emerald Interior Acrylic Latex Flat.

Sherwin Williams Harmony Interior Acrylic Latex Flat.

Sherwin Williams Solo Interior/Exterior 100% Acrylic Latex Flat.

Sherwin Williams Cashmere Interior Acrylic Flat Enamel.

Sherwin Williams Duration Home Interior Latex Flat.

Topcoat: Low sheen (MPI Gloss Level 2) MPI# 44/X-Green 44, 144/X-Green 144

**Benjamin Moore® Natura® Interior Waterborne Eggshell Finish 513.**

**Benjamin Moore Ultra Spec 500 Interior Low Sheen N537.**

**PPG Paints; Speedhide zero Interior Latex Eggshell, 6-4310XI**.

Sherwin Williams Harmony Interior Acrylic Latex Eg-Shel.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Low Gloss Eg-Shel.

Sherwin Williams Eco-Select Zero VOC Interior Latex Eg-Shel.

Topcoat: Eggshell (MPI Gloss Level 3) MPI # 52, X-Green 52, 145, X-Green 145, 139, X-Green 139:

**Benjamin Moore® Eco Spec® WB Interior Latex Eggshell Finish N374.**

**Benjamin Moore Ultra Spec 500 Latex Eggshell N538.**

**PPG Paints; Speedhide zero Interior Latex Satin, 6-4410XI.**

Sherwin Williams Emerald Interior Acrylic Latex Satin.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Eg-Shel.

Topcoat: Latex, interior (MPI Gloss Level 4), MPI #43 43 X-Green:

Benjamin Moore® Ultra Spec® 500 Interior Semi-Gloss N539.

**Benjamin Moore® Super Hide® Zero VOC Interior Semi-Gloss 358.**

Sherwin Williams Eco-Select Zero VOC Interior Latex Semi-Gloss.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Semi-Gloss.

Sherwin Williams ProMar 400 Zero VOC Interior Latex Semi-Gloss.

Topcoat: Semi-gloss (MPI Gloss Level 5), MPI # 54, X-Green 54, 147, X-Green 147, 141, X-Green 141.

**Benjamin Moore® Eco Spec® WB Interior Latex Semi-Gloss Finish N376.**

Benjamin Moore Ultra Spec 500 Interior Latex Gloss N540.

**PPG Paints; Speedhide zero Interior Latex Semi-Gloss, 6-4510XI.**

Sherwin Williams Harmony Interior Acrylic Latex Semi-Gloss.

Sherwin Williams Harmony Interior Acrylic Latex Semi-Gloss.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Gloss.

Sherwin Williams ProMar 400 Zero VOC Interior Latex Gloss.

* + - * 1. CMU Substrates:

Latex System MPI INT 4.2A:

Block Filler: Block filler, latex, interior/exterior, MPI #4, X-Green 4:

Intermediate Coat: matching topcoat.

Topcoat: Flat (MPI Gloss Level 1) MPI # 53, X-Green 53, 143, X-Green 143

**Benjamin Moore® Natura® Interior Waterborne Flat Finish 512.**

**Benjamin Moore® Eco Spec® WB Interior Latex Flat Finish N373.**

**Benjamin Moore® Ultra Spec® 500 Interior Flat Finish N536.**

**PPG Paints; Speedhide zero Interior Latex Flat, 6-4110XI.**

Sherwin Williams Emerald Interior Acrylic Latex Flat.

Sherwin Williams Harmony Interior Acrylic Latex Flat.

Sherwin Williams Solo Interior/Exterior 100% Acrylic Latex Flat.

Sherwin Williams Cashmere Interior Acrylic Flat Enamel.

Sherwin Williams Duration Home Interior Latex Flat.

Topcoat: Low sheen (MPI Gloss Level 2) MPI# 44/X-Green 44, 144/X-Green 144

**Benjamin Moore® Natura® Interior Waterborne Eggshell Finish 513.**

**Benjamin Moore Ultra Spec 500 Interior Low Sheen N537.**

**PPG Paints; Speedhide zero Interior Latex Eggshell, 6-4310XI.**

Sherwin Williams Harmony Interior Acrylic Latex Eg-Shel.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Low Gloss Eg-Shel.

Sherwin Williams Eco-Select Zero VOC Interior Latex Eg-Shel.

Topcoat: Eggshell (MPI Gloss Level 3) MPI # 52, X-Green 52, 145, X-Green 145, 139, X-Green 139:

**Benjamin Moore® Eco Spec® WB Interior Latex Eggshell Finish N374.**

**Benjamin Moore Ultra Spec 500 Latex Eggshell N538.**

**PPG Paints; Speedhide zero Interior Latex Satin, 6-4410XI.**

Sherwin Williams Emerald Interior Acrylic Latex Satin.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Eg-Shel.

Topcoat: Latex, interior (MPI Gloss Level 4), MPI #43 43 X-Green:

**Benjamin Moore® Super Hide® Zero VOC Interior Semi-Gloss 358.**

Benjamin Moore® Ultra Spec® 500 Interior Semi-Gloss N539.

Sherwin Williams Eco-Select Zero VOC Interior Latex Semi-Gloss.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Semi-Gloss.

Sherwin Williams ProMar 400 Zero VOC Interior Latex Semi-Gloss.

Topcoat: Semi-gloss (MPI Gloss Level 5), MPI # 54, X-Green 54, 147, X-Green 147, 141, X-Green 141.

**Benjamin Moore® Eco Spec® WB Interior Latex Semi-Gloss Finish N376.**

Benjamin Moore Ultra Spec 500 Interior Latex Gloss N540.

**PPG Paints; Speedhide zero Interior Latex Semi-Gloss, 6-4510XI.**

Sherwin Williams Emerald Interior Acrylic Latex Semi-Gloss.

Sherwin Williams Harmony Interior Acrylic Latex Semi-Gloss.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Gloss.

Sherwin Williams ProMar 400 Zero VOC Interior Latex Gloss.

Sherwin Williams Cashmere Interior Acrylic Medium Lustre.

* + - * 1. Steel Substrates:

Institutional Low-Odor/VOC Latex System MPI INT 5.1S:

Prime Coat: Primer, rust inhibitive, water based MPI #79

Intermediate Coat: Latex, interior, low odor/VOC, matching topcoat.

Topcoat: Flat (MPI Gloss Level 1) MPI # 53, X-Green 53, 143, X-Green 143

**Benjamin Moore® Natura® Interior Waterborne Flat Finish 512.**

**Benjamin Moore® Eco Spec® WB Interior Latex Flat Finish N373.**

**Benjamin Moore® Ultra Spec® 500 Interior Flat Finish N536.**

**PPG Paints; Speedhide zero Interior Latex Flat, 6-4110XI.**

Sherwin Williams Emerald Interior Acrylic Latex Flat.

Sherwin Williams Harmony Interior Acrylic Latex Flat.

Sherwin Williams Solo Interior/Exterior 100% Acrylic Latex.

Sherwin Williams Cashmere Interior Acrylic Flat Enamel.

Sherwin Williams Duration Home Interior Latex Flat.

Topcoat: Low sheen (MPI Gloss Level 2) MPI# 44/X-Green 44, 144/X-Green 144

**Benjamin Moore® Natura® Interior Waterborne Eggshell Finish 513.**

**Benjamin Moore Ultra Spec 500 Interior Low Sheen N537.**

**PPG Paints; Speedhide zero Interior Latex Eggshell, 6-4310XI.**

Sherwin Williams Harmony Interior Acrylic Latex Eg-Shel.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Low Gloss Eg-Shel.

Sherwin Williams Eco-Select Zero VOC Interior Latex Eg-Shel.

Topcoat: Eggshell (MPI Gloss Level 3) MPI # 52, X-Green 52, 145, X-Green 145, 139, X-Green 139:

**Benjamin Moore® Eco Spec® WB Interior Latex Eggshell Finish N374.**

**Benjamin Moore Ultra Spec 500 Latex Eggshell N538.**

**PPG Paints; Speedhide zero Interior Latex Satin, 6-4410XI.**

Sherwin Williams Emerald Interior Acrylic Latex Satin.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Eg-Shel.

Topcoat: Latex, interior (MPI Gloss Level 4), MPI #43 43 X-Green:

**Benjamin Moore® Super Hide® Zero VOC Interior Semi-Gloss 358.**

Benjamin Moore® Ultra Spec® 500 Interior Semi-Gloss N539.

Sherwin Williams Eco-Select Zero VOC Interior Latex Semi-Gloss.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Semi-Gloss.

Sherwin Williams ProMar 400 Zero VOC Interior Latex Semi-Gloss.

Topcoat: Semi-gloss (MPI Gloss Level 5), MPI # 54, X-Green 54, 147, X-Green 147, 141, X-Green 141.

**Benjamin Moore® Eco Spec® WB Interior Latex Semi-Gloss Finish N376.**

Benjamin Moore Ultra Spec 500 Interior Latex Gloss N540.

**PPG Paints; Speedhide zero Interior Latex Semi-Gloss, 6-4510XI.**

Sherwin Williams Emerald Interior Acrylic Latex Semi-Gloss.

Sherwin Williams Harmony Interior Acrylic Latex Semi-Gloss.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Gloss.

Sherwin Williams ProMar 400 Zero VOC Interior Latex Gloss.

Sherwin Williams Cashmere Interior Acrylic Medium Lustre.

* + - * 1. Wood Substrates: Wood trim and Architectural woodwork.

Institutional Low-Odor/VOC Latex System MPI INT 6.3V:

Prime Coat: Primer, latex, for interior wood, MPI #6, 39, 137.

**Benjamin Moore® Sure Seal™ Latex Primer Sealer 027.**

Sherwin Williams Multi-Purpose Interior/Exterior Latex Primer.

PPG Paints; Gripper Interior/Exterior 100% Acrylic Primer/Sealer, 3210XI.

Topcoat: Flat (MPI Gloss Level 1) MPI # 53, X-Green 53, 143, X-Green 143

**Benjamin Moore® Natura® Interior Waterborne Flat Finish 512.**

**Benjamin Moore® Eco Spec® WB Interior Latex Flat Finish N373.**

**Benjamin Moore® Ultra Spec® 500 Interior Flat Finish N536.**

**PPG Paints; Speedhide zero Interior Latex Flat, 6-4110XI.**

Sherwin Williams Emerald Interior Acrylic Latex Flat.

Sherwin Williams Harmony Interior Acrylic Latex Flat.

Sherwin Williams Solo Interior/Exterior 100% Acrylic Latex.

Sherwin Williams Cashmere Interior Acrylic Flat Enamel.

Sherwin Williams Duration Home Interior Latex Flat.

Topcoat: Low sheen (MPI Gloss Level 2) MPI# 44/X-Green 44, 144/X-Green 144

**Benjamin Moore® Natura® Interior Waterborne Eggshell Finish 513**

**Benjamin Moore Ultra Spec 500 Interior Low Sheen N537.**

**PPG Paints; Speedhide zero Interior Latex Eggshell, 6-4310XI.**

Sherwin Williams Harmony Interior Acrylic Latex Eg-Shel.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Low Gloss Eg-Shel.

Sherwin Williams Eco-Select Zero VOC Interior Latex Eg-Shel.

Topcoat: Eggshell (MPI Gloss Level 3) MPI # 52, X-Green 52, 145, X-Green 145, 139, X-Green 139:

**Benjamin Moore® Eco Spec® WB Interior Latex Eggshell Finish N374.**

**Benjamin Moore Ultra Spec 500 Latex Eggshell N538.**

**PPG Paints; Speedhide zero Interior Latex Satin, 6-4410XI.**

Sherwin Williams Emerald Interior Acrylic Latex Satin.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Eg-Shel.

Topcoat: Semi-Gloss (MPI Gloss Level 4), MPI #43, #43 X-Green, 140, 140 X-Green, 146, 146 X-Green.

**Benjamin Moore® Super Hide® Zero VOC Interior Semi-Gloss 358.**

Benjamin Moore® Ultra Spec® 500 Interior Semi-Gloss N539.

Sherwin Williams Eco-Select Zero VOC Interior Latex Semi-Gloss.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Semi-Gloss.

Sherwin Williams ProMar 400 Zero VOC Interior Latex Semi-Gloss.

Topcoat: Semi-gloss (MPI Gloss Level 5), MPI # 54, X-Green 54, 147, X-Green 147, 141, X-Green 141.

**Benjamin Moore® Eco Spec® WB Interior Latex Semi-Gloss Finish N376.**

Benjamin Moore Ultra Spec 500 Interior Latex Gloss N540.

**PPG Paints; Speedhide zero Interior Latex Semi-Gloss, 6-4510XI.**

Sherwin Williams Emerald Interior Acrylic Latex Semi-Gloss.

Sherwin Williams Harmony Interior Acrylic Latex Semi-Gloss.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Gloss.

Sherwin Williams ProMar 400 Zero VOC Interior Latex Gloss.

Sherwin Williams Cashmere Interior Acrylic Medium Lustre.

* + - * 1. Gypsum Board and Plaster Substrates:

Institutional Low-Odor/VOC Latex System MPI INT 9.2M:

Prime Coat: Primer sealer, interior, institutional low odor/VOC, MPI #50, 50 X-Green, 149, 149 X-Green.

**Benjamin Moore® Natura® Waterborne interior Primer 511.**

**Benjamin Moore® Eco Spec® WB Interior Latex Primer N372.**

**Benjamin Moore® Ultra Spec® 500 Interior Primer N534.**

**PPG Paints; Speedhide zero Interior Latex Sealer, 6-4900XI.**

Sherwin Williams Harmony Interior Latex Primer.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Primer.

Sherwin Williams Quick Dry Interior/Exterior Stain Blocking Primer.

Intermediate Coat: matching topcoat.

Topcoat: Flat (MPI Gloss Level 1) MPI # 53, X-Green 53, 143, X-Green 143

**Benjamin Moore® Natura® Interior Waterborne Flat Finish 512.**

**Benjamin Moore® Eco Spec® WB Interior Latex Flat Finish N373.**

**Benjamin Moore® Ultra Spec® 500 Interior Flat Finish N536.**

**PPG Paints; Speedhide zero Interior Latex Flat, 6-4110XI.**

Sherwin Williams Emerald Interior Acrylic Latex Flat.

Sherwin Williams Harmony Interior Acrylic Latex Flat.

Sherwin Williams Solo Interior/Exterior 100% Acrylic Latex.

Sherwin Williams Cashmere Interior Acrylic Flat Enamel.

Sherwin Williams Duration Home Interior Latex Flat.

Topcoat: Low sheen (MPI Gloss Level 2) MPI# 44/X-Green 44, 144/X-Green 144

**Benjamin Moore® Natura® Interior Waterborne Eggshell Finish 513.**

**Benjamin Moore Ultra Spec 500 Interior Low Sheen N537.**

**PPG Paints; Speedhide zero Interior Latex Eggshell, 6-4310XI.**

Sherwin Williams Harmony Interior Acrylic Latex Eg-Shel.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Low Gloss Eg-Shel.

Sherwin Williams Eco-Select Zero VOC Interior Latex Eg-Shel.

Topcoat: Eggshell (MPI Gloss Level 3) MPI # 52, X-Green 52, 145, X-Green 145, 139, X-Green 139:

**Benjamin Moore® Eco Spec® WB Interior Latex Eggshell Finish N374.**

**Benjamin Moore Ultra Spec 500 Latex Eggshell N538.**

**PPG Paints; Speedhide zero Interior Latex Satin, 6-4410XI.**

Sherwin Williams Emerald Interior Acrylic Latex Satin.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Eg-Shel.

Topcoat: Semi-Gloss (MPI Gloss Level 4), MPI #43, 43 X-Green, 140, 140 X-Green, 146, 146 X-Green.

**Benjamin Moore® Super Hide® Zero VOC Interior Semi-Gloss 358.**

Benjamin Moore® Ultra Spec® 500 Interior Semi-Gloss N539.

Sherwin Williams Eco-Select Zero VOC Interior Latex Semi-Gloss.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Semi-Gloss.

Sherwin Williams ProMar 400 Zero VOC Interior Latex Semi-Gloss.

Topcoat: Semi-gloss (MPI Gloss Level 5), MPI # 54, X-Green 54, 147, X-Green 147, 141, X-Green 141.

**Benjamin Moore® Eco Spec® WB Interior Latex Semi-Gloss Finish N376.**

Benjamin Moore Ultra Spec 500 Interior Latex Gloss N540.

**PPG Paints; Speedhide zero Interior Latex Semi-Gloss, 6-4510XI.**

Sherwin Williams Harmony Interior Acrylic Latex Semi-Gloss.

Sherwin Williams ProMar 200 Zero VOC Interior Latex Gloss.

Sherwin Williams ProMar 400 Zero VOC Interior Latex Gloss.

Sherwin Williams Cashmere Interior Acrylic Medium Lustre.

END OF SECTION