Refresh Contracting & Cabinetry Ltd.
76D Old Bay Bulls Road
St. John's, NL A1G 1C6 Canada

Environmental Assessment Registration
94 Clyde Avenue, Cabinet Manufacturing Facility

1. **NAME OF UNDERTAKING:** 94 Clyde Avenue, Cabinet Manufacturing Facility

2. **PROPONENT:**

   Name of Corporate Body: Refresh Contracting & Cabinetry LTD

   Address: 958 Topsail Road, Mount Pearl A1N3K2

   Chief Executive Officer:
   Name: Trevor Earle
   Official Title: Owner / Operator
   Address: 76D Old Bay Bulls Road, St. John's, NL A1G 1C6
   Telephone No: (709) 770 5605

   Principal Contact Person for purposes of environmental assessment:
   Name: Trevor Earle
   Official Title: Owner / Operator
   Address: 76D Old Bay Bulls Road, St. John's, NL A1G 1C6
   Telephone No: (709) 770 5605
   Email: trevorearle@refreshcontracting.ca

3. **The UNDERTAKING:**

   3.1. Name of the Undertaking:

   94 Clyde Avenue, Cabinet Manufacturing Facility

   3.2. Purpose/Rationale/Need for the Undertaking:

   3.2.1. Provide appropriate office space to allow for administration activities.

   3.2.2. Provide a showroom area to allow for interaction with clients.

   3.2.3. Provide appropriate space to manufacture/assemble cabinetry.

   3.2.4. Provide appropriate operational space for painting.

4. **DESCRIPTION OF THE UNDERTAKING:**

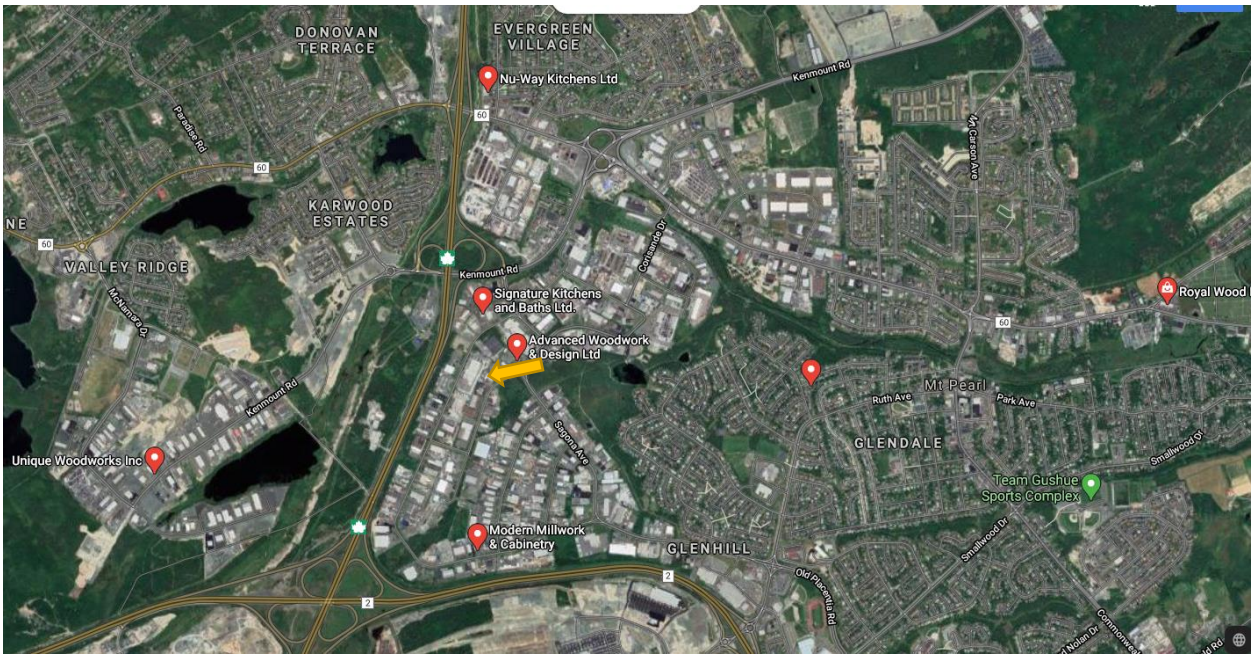
4.1. Geographical Location:

The undertaking is at 94 Clyde Avenue, Mount Pearl, Newfoundland.

This map identifies the physical location of the building within the City of Mount Pearl and also identifies the adjoining lots.

This map identifies the location in Mount Pearl's Business Park surrounded by other industrial and commercial businesses. The nearest residence is ~ 2 kilometers away and the nearest waterway from the building is approximately 485 feet way.

Other cabinet businesses are located with ~2-5 kilometers from the location.



4.2 Physical Features:

The building is located in a fully developed industrial park and is connected to the municipal water and sewer.

The building is a single-story building with ~ 4900 square feet in total:

- Office Administration
- Client showroom area
- Mill shop & storage
- Spray booth area

There are 18 parking spaces located in the front and rear of the building and no other tenants exist in the building.

4.3 Construction

There will be no changes to the existing footprint of the building. All construction is within the interior of existing structure and will include minor modifications to meet the areas required above.

4.4 Operation

The building will be open during core business hours (~ 0800 to 1630 hours) from Monday to Friday each week. The showroom will receive a small number of visitors, estimated at 3-5 people per week.

The workshop area of the building (Cabinet manufacturing/assembly & Spray booth area) will have restricted access – only for production workers, shipping/receiving people, and management.

The spray painting will be completed in a dedicated and isolated part of the building where a spray machine is used. All paints will be stored in a steel storage locker.

Exit signs will be erected to facilitate egress.

Fire extinguishers will be available throughout the building.

The building will also be protected by a video system.

4.4.1. Cabinet Manufacturing/Assembly

The workshop will be complete with work benches for cabinet assemble. Various types of cabinet doors, and wood particle and or solid wood are sourced from local or Canadian providers. Other wood working tools may be used to ensure quality results. Mechanical fasteners and various cabinetry hardware maybe use.

Dust or other contaminations could affect the quality of the finished product so a dust collecting (vacuum) system is connected to the applicable wood working tools to remove most of the coarse and fine dust generated by manufacturing into a dust collector inside the building. The dust collector is regularly serviced, emptied, and then disposed of.

4.4.2. Spray Booth

Spray painting is an essential part of the production process to ensure quality. Cabinet doors and other wood products will be sprayed with “water-based” paint. The spray painting and drying will be completed in a dedicated and isolated part of the building.

The Spray Booth is an open face, modular design, constructed with single skin, 18 gauge G 90 galvanized steel, with pre punched panels and nut and bolt assembly which provides effective structural integrity. This will occupy a space of ~92 inches high X 144 inches wide X 180 inches deep. Specifications on the Spray Booth can be found below and Appendix 1.

An employee will operate a High-Volume Low Pressure (HVLP) hand spray unit to paint the wood products with “water-based” paint. (Appendix 2) The room will be restricted to minimize

contamination. Volatile Organic Compounds (VOCs) are organic chemicals that have a high vapor pressure at ordinary room temperature. Waterbased paint generates low VOCs (Appendix 3-5). The Open Face Spray Booth draws air thorough the open front which is then exhausted through the back-wall filters. The booth complies with NFPA-33, the top-level safety code in the USA for spray application of flammable or combustible materials. The mechanical fan filters any VOCS from the "water-based" paint before exhausting the remaining air outdoors.

The booth is expected to be used on a minimal basis on average. During operations, the exhaust fans will ventilate to the roof, after removal of the particulates and any volatile organic compounds through the installed filters. Filters are used to minimize the air particulates. The paint to be used will be thinned latex (thinning is required to ensure smooth delivery through the paint sprayer) so that there will be minimal volatile emissions. The newest machines are designed to effectively reduce the overspray and any waste and thereby reduce emissions. The filters on the spray equipment and spray booth are replaced regularly using high quality filters. Again, the very high quality and appearance required of the finished products makes the coating process essential. Filters that have excessive air flow resistance will not produce adequate results with the coating operations and finishes. Consequently, the environmental impact of the air emissions to the surrounds of the building is essentially eliminated.

Wood products are then placed on a rack to air dry in the drying room. The drying room is a room for the coated work pieces to dry, for the coatings to completely cure, before they are further handled and moved out of the room.

The basic specifications of the booth are:

- Dimensions: ~92 inches high X 144 inches wide X 180 inches
- Complies with NFPA 33
- UL listed tube axial fan and **3 phase motor with belt guard, pulleys & sheave
- All 18-gauge galvanized steel construction panels
- Light fixtures of spray booth separated from spray area by glass panel tempered and sealed to the metal
- Lights are CSA Approved
- 20" x 20" fiberglass exhaust filters • Draft gauge • All hardware, fasteners, sealants
- Assembly instructions
- UL listed components
- Air filters listed as class 1, in accordance with ANSI/UL900.
- 3-Phase motor
- An ETL-listed electrical control panel (Controls your lights and fan)
- An air valve solenoid to interlock the fan motor and spray equipment (No Fan, No Spray)

4.4.3. Waste Collection & Disposal:

Solid nonhazardous waste generated during the operation of woodworking in workshop will consist mostly of sawdust with some larger pieces of wood particle and/or solid. Any materials that can be recycled will be collected, sorted and delivered to the recycling centre at Robin Hood Bay.

Solid hazardous waste generated during the operation of the Spray Booth will consist of paint cans containing paint residue and empty paint cans with minimal dried residue. These will be maintained inside the general Spray Booth in a steel storage locker and then disposed of through the hazardous waste disposal site at Robin Hood Bay.

No adverse environmental impacts are expected.

4.5. Occupations:

The building will be occupied by a staff of ~ 4 to 5 during business and operational hours. Existing operations and experienced staff will continue to handle the business.

4.6. Project Related Documents:

Not Applicable.

5**. APPROVAL OF THE UNDERTAKING:**

All necessary permits have been submitted for approval to the various government entities however, until our project is registered with Service NL all approvals are pending the successful response to the environmental assessment process.

6**. SCHEDULE:**

Renovation of the building will take approximately a month to complete.

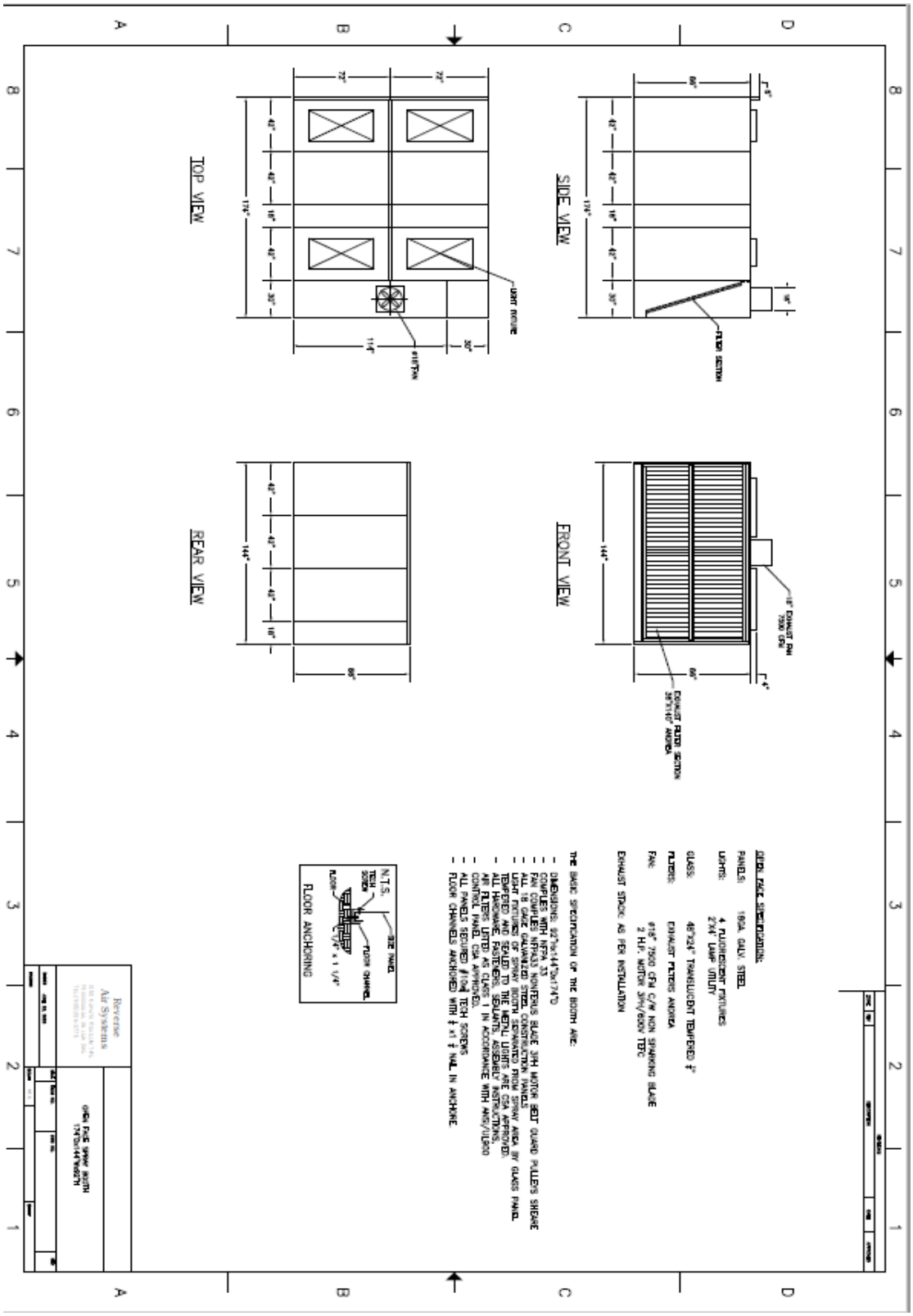
7**. FUNDING**

No government agency funds have been requested.

8. **APPENDIX**

1. Spray Booth Drawing
2. Spray Gun Product
3. Water Based Pigmented Lacquer
4. Water Based Primer
5. Water Based Clear

Appendix 1: Spray Booth Drawings



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Appendix 2: Spray Gun

C.A.Technologies

CPR-G

GRAVITY FEED SPRAY GUN PRODUCT INFORMATION

CAT Pressure Reduced

The CPR-Gravity gun comes equipped with both a pressure reduced air cap 23-2101 and a HVLP air cap 23-1301 for areas requiring HVLP compliance.

23-2101 - consumes 11 cfm at 29 psi gun inlet.

23-1301 - consumes 13.5 cfm at 29 psi gun inlet.

23-2101 pressure reduced air caps can be used with the 0.8 mm - 1.7 mm fluid orifices listed below.

23-1301 HVLP air caps can be used with the full range of fluid orifices listed below.

HVLP/PRESSURE REDUCED AIR CAP AND FLUID NOZZLE CHART

MODEL NO.	AIR CAPS	FLUID TIP RANGE	*MAX GUN INLET PRESS. FOR HVLP	FAN CONTROL	SCFM @ MAX GUN INLET	STANDARD IN CAT PACK	AVAILABLE FLUID NOZZLES TIPS	NEEDLES / marking on needle
CPR-G	23-2101 CPR (Pressure Reduced)	0.8 - 1.7	29*	60-1504 (S)	11		33-0208 0.8mm (.022")	40-1308 (308)
						W, W-PPS	33-0210 1.0mm (.040")	40-1310 (310)
							33-0212 1.2mm (.046")	40-1312 (312)
						W, A, PPS	33-0213 1.3mm (.052")	40-1313 (313)
							33-0214 1.4mm (.055")	40-1314 (314)
	23-1301 (HVLP)	0.8 - 2.2	29*		13.5	W, A, PPS	33-0215 1.5mm (.059")	40-1315 (315)
						W, A, PPS	33-0217 1.7mm (.070")	40-1317 (317)
							33-0219 1.9mm (.075")	40-1319 (319)
							33-0222 2.2mm (.086")	40-1322 (322)

Actual fluid nozzle and air cap combinations are determined by application (see application chart page 4)

*Note: Air cap test gages are available to confirm HVLP compliance.

*Gun inlet pressures may vary as required by application

W = Wood
A = Automotive
PPS = 3M™ PPS™

Coating Atomization Technologies 337 South Arthur Avenue, Louisville CO 80027 Phone: 888.820.4498, Fax: 303.438.5708
www.spraycat.com

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Appendix 3: Water Based Pigmented Lacquer

M.L. CAMPBELL®
WOOD FINISHING SYSTEMS

M.L. Campbell
224 Catherine Street
Fort Erie, Ontario L2A 5M9 Canada
Tel: 1(800) 364-1359
Web: www.mlcampbell.com

Product Information (PI) Sheet

Product: Aqualente Plus Water Borne Pre-Cat Pigmented Lacquer

Code(s):	W136252 Dull	W136254 Satin	W136258 Gloss	

Description: A technically advanced, GREENGUARD Certified, VOC compliant, easy sanding, HAPs Free, pre-catalyzed water borne coating for interior wood surfaces. Aqualente Plus is based on breakthrough proprietary resin technology that produces no hazardous off-gassing during cure. Its new technology provides fast dry and trouble-free application as well as a beautiful appearance, mirroring its solvent-based counterpart – pre-catalyzed lacquer. Aqualente Plus passes all KCMA tests, AWI System 2, Pre-catalyzed Lacquer and System 8, Water Base Acrylic Cross Linking chemical and moisture resistance tests.

Uses: For use on kitchen and bathroom cabinets, dormitory, household and office furniture. Also for use on toys, paneling and display fixtures.

Other Products: For primer requirements, see M.L. Campbell W136259 Aqualente Plus Stain-blocking WB White Primer.

Physical Properties (packaged)	
Weight per Gallon:	10.15 lbs. ± 0.2 lbs/gal
Viscosity - Ford #4 at 77°F/25°C:	35 – 45 seconds
% Solids - by Weight:	51.0 ± 3
% Solids - by Volume:	40.0 ± 3
Theoretical Coverage at 1 Mil Dry: (Coverage figures DO NOT INCLUDE spray loss. Also allow for surface irregularities and porosity of wood surface to be finished.)	620 – 675 sq. ft. per gallon
Flash Point (PMCC):	Not Combustible
Color:	White/Opaque
Sheen (60° Glossmeter):	Dull 15 ± 2, Satin 35 ± 2, Gloss 80+
Packaged VOC:	105 - 135 g/l (0.80-1.10 lbs./gallon)
Volatile HAPS (lbs/lbs of solids):	0.00 lbs/lb
Photochemically Reactive:	No

Surface Preparation	
New Work:	Remove any dirt, grease or other contamination and sand as required.
Old Work:	Remove any dirt, grease, or other contamination from surface. Sand well to improve adhesion.

Reduction
Product does not require reducing, but can be thinned with distilled water (use very small amounts at a time). Thinning should be limited to 5%. Over thinning can cause sags due to high solids content of product.

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Appendix 4: Water Based Primer

M.L. CAMPBELL®
WOOD FINISHING SYSTEMS

M.L. Campbell
224 Catherine Street
Fort Erie, Ontario L2A 5M9 Canada
Tel: 1(800) 364-1359
Web: www.mlcampbell.com

Product Information (PI) Sheet

Product: **Aqualente Plus Stain-blocking Water Borne White Primer**

Code(s):	**W136259**			

Description: Aqualente Plus Stain-blocking WB White Primer is a GREENGUARD certified, fast drying, easy sanding water borne white primer made with a very unique all acrylic polymer that has built in functionality to help prevent tannin / stain migration. Special polymers lock in water-soluble tannins to help prevent them from bleed through while also creating an ideal smooth basecoat for water borne pigmented topcoats.

Uses: As a primer / undercoater on unfinished MDF and softwoods such as pine and cedar. Also, ideal applied to hard woods such as oak, poplar, birch and maple.

Other Products: Polystar Lacquer, Aqualente Plus Pre-Catalyzed and Aquatana Post-Catalyzed Water Borne Clear and Pigmented topcoats.

Physical Properties (packaged)	
Weight per Gallon:	11.08 ± 0.25 lbs/gal
Viscosity - Ford #4 at 77°F/25°C:	40 – 50 seconds
% Solids - by Weight:	57.0 ± 2
% Solids - by Volume:	43.0 ± 2
Theoretical Coverage at 1 Mil Dry: (Coverage figures DO NOT INCLUDE spray loss. Also allow for surface irregularities and porosity of wood surface to be finished.)	685 sq. ft per gallon
Flash Point (PMCC):	Not Combustible
Color:	White
Sheen (60° Glossmeter):	N/A
Packaged VOC:	42g/l (0.35lbs/gallon) ±3%
Photochemically Reactive:	No

Surface Preparation	
New Work:	Remove any dirt, grease or other contamination and sand as required.
Old Work:	Strip old finishes completely and remove all contaminants from the surface. Make sure surface is dry. Finish as new work.

Reduction

No reduction is required. However, small amounts of clean water may be used for specific equipment. Over-thinning due to the high solids content of this product can cause sags and potentially reduce stain-blocking properties. Thinning should be limited to 5-10%.

Tinting

Aqualente Stain-blocking WB Primer White can be tinted with Pratt & Lambert or Puratoner colorants, up to 3 ounces per gallon maximum.

Application Procedure

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Appendix 5: Water Based Clear Lacquer

M.L. CAMPBELL
WOOD FINISHING SYSTEMS

M.L. Campbell
224 Catherine Street
Fort Erie, Ontario L2A 5M9 Canada
Tel: 1(800) 364-1359
Web: www.mlcampbell.com

Product Information (PI) Sheet

Product: Aqualente Plus Water Borne Pre-Catalyzed Clear Lacquer

Code(s):	C136352 Dull	C136354 Satin	C136358 Gloss	

Description: A technically advanced, GREENGUARD Certified, VOC compliant, easy sanding, HAPs Free, pre-catalyzed water borne coating for interior wood surfaces. Aqualente Plus is based on breakthrough proprietary resin technology that produces no hazardous off-gassing during cure. Its new technology provides fast dry and trouble-free application as well as a beautiful appearance, mirroring its solvent-based counterpart – pre-catalyzed lacquer. Aqualente Plus passes all KCMA tests, AWI System 2, Pre-catalyzed Lacquer and System 8, Water Base Acrylic Cross Linking chemical and moisture resistance tests.

Uses: For use on kitchen and bathroom cabinets, dormitory, household, and office furniture. Also for use on toys, paneling, and display fixtures.

Other Products: For stain requirements, see M.L. Campbell WoodSong II Series Water Borne Stains and Toners For sealer requirements, see M.L. Campbell C136359 Aqualente Plus Sealer.

Physical Properties (packaged)	
Weight per Gallon:	8.60 ± 0.2 lbs/gal
Viscosity - Ford #4 at 77°F/25°C:	32-37" Ford 4
% Solids - by Weight:	35.20 ± 3
% Solids - by Volume:	32.10 ± 3
Theoretical Coverage at 1 Mil Dry: (Coverage figures DO NOT INCLUDE spray loss. Also allow for surface irregularities and porosity of wood surface to be finished.)	490-520 sq. ft. per gallon
Flash Point (PMCC):	Not Combustible
Color:	Milky White
Sheen (60° Glossmeter):	Dull 15 ± 2, Satin 35 ± 2, Gloss 80+
Packaged VOC:	120-131 g/l (1.0-1.09 lbs./gallon)
Volatile HAPS (lbs/lbs of solids):	0.00 lbs/lb
Photochemically Reactive:	No

Surface Preparation	
New Work:	Remove any dirt, grease or other construction contamination from surface. Sand wood as required. No sealer is required.
Old Work:	Remove any dirt, grease, or other contamination from surface. Sand well to improve adhesion.

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Trevor Earle
Chief Executive Officer
June 22, 2020