

Green Friendly Paint Green Building Performance Assessment



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Project No: AFI-G003
Date: Aug 1, 2012

EXECUTIVE SUMMARY

This report assesses the performance of DuROCK Alfacing International Ltd.'s (hereinafter referred to as "DuROCK") Green Friendly Paint product line (hereinafter referred to as "GFP") DuROCK within the various LEED® green building rating systems. We are pleased to advise you that for a typical building, GFP contributes towards the following in each of the various rating systems assessed:

Green Building Rating System	LEED Point Threshold				GFP Related Points	Potential GFP Point Contribution
	Certified	Silver	Gold	Platinum		
LEED 2009 NC	40 - 49	50 - 59	60 - 79	≥ 80	5	>1
LEED 2009 NC Schools					5	>1
LEED Canada - NC 2009					5	>1
LEED 2009 Retail					5	>1
LEED 2009 EBOM					1	<1
LEED Canada – EBOM 2009					1	<1
LEED 2009 Healthcare					4	<1
LEED 2009 Commercial Interior					5	>1
LEED Canada – Commercial Interior 2006	21 - 26	27 - 31	32 - 41	42 - 57	3	>1
LEED Homes Multifamily Mid-Rise (2010)	45 - 59	60 - 74	75 - 89	90 - 136	8	1
LEED Homes (2008)					8	1
LEED Canada-Homes (2009)					8	1

It should be noted that DuROCK's potential for directly contributing points to a particular LEED project depends on several factors including which other interior paint products are being used.

In addition to the contributions made in the above green rating systems, further noteworthy environmental benefits of DuROCK's GFP should be promoted:

- #350, #550 and #750 paint is comprised of 15% (by weight) water that has been recovered and purified on-site from upstream industrial processes;
- Ultra-ECO series contains 40% post-consumer recycled paint;³
- Designed with mould/mildew resistance, to provide enhanced indoor air quality for building occupants as well as protection and longevity of the building envelope;
- #750 series, with the exception of Dry Fall, meets the MPI 147 standard, signifying exceptional paint coverage and durability characteristics.
- DuROCK incorporates on-site solar PV electricity generation at their manufacturing facilities to offset some of their energy consumption.

Lastly, because of the relationship Mindscape enjoys with www.OntarioGreenSpec.ca, we have added your product into their listing database online under the category "Materials and Resources / Paint". For additional membership benefits and promotional opportunities, please refer to http://www.ontariogreenspec.ca/membership_rates_benefits. You may wish to consider promotional opportunities both there and in other online green databases such as U.S. based Greenspec® (see www2.buildinggreen.com/about/gf-listing-process).

TABLE OF CONTENTS

<i>Executive Summary</i>	<i>i</i>
<i>List of Tables</i>	<i>ii</i>
1.0 INTRODUCTION	3
1.1 TERMS DEFINED	3
1.2 GREEN BUILDING RATING SYSTEMS	4
1.3 RATING METHODOLOGY	5
2.0 PRODUCT STUDY FINDINGS & ASSUMPTIONS	7
3.0 RATING SYSTEM ASSESSMENTS	8
3.1 LEED 2009 FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS.....	8
3.2 LEED 2009 FOR SCHOOLS.....	9
3.3 LEED CANADA FOR NEW CONSTRUCTION AND MAJOR RENOVATION 2009.....	10
3.4 LEED 2009 FOR RETAIL.....	11
3.5 LEED 2009 EXISTING BUILDINGS: OPERATION AND MAINTENANCE.....	12
3.6 LEED CANADA - EXISTING BUILDINGS: OPERATION AND MAINTENANCE 2009	13
3.7 LEED 2009 FOR HEALTH CARE	14
3.8 LEED 2009 FOR COMMERCIAL INTERIOR.....	15
3.9 LEED 2006 FOR CANADA COMMERCIAL INTERIOR	16
3.10 LEED 2010 FOR HOMES MULTIFAMILY MID-RISE	17
3.11 LEED 2008 FOR HOMES	18
3.12 LEED 2009 CANADA FOR HOMES	19
4.0 ADDITIONAL MARKETABLE ENVIRONMENTAL ATTRIBUTES	20
5.0 CONCLUSIONS & RECOMMENDATIONS	21

APPENDIX A: RECYCLED AND REGIONAL CONTENT CALCULATIONS

LIST OF TABLES

Table 1: Standard Evaluation Table	5
Table 2: GFP Green Building Program Performance Summary	21

1.0 INTRODUCTION

Thank you for contracting Mindscape Innovations Group Inc. (Mindscape) to assess your eligibility for points in the various LEED® rating systems. Mindscape is one of Canada's leading professional services firms in the commercial and residential energy ratings market, and is proud to have played a key role in founding the LEED Canada-Homes (2008) program especially. We provide consulting and certification services for all LEED Canada programs and matching US programs: residential and commercial, existing buildings and new. We are most actively engaged in the LEED for Homes market (low-rise, mid-rise, and high-rise), and are recognized experts in the LEED rating systems generally, on both sides of the border: US and Canada.

DuROCK can play a key role in energy efficient and environmentally responsible design of buildings. The purpose of this report is to assess the performance and point eligibility of DuROCK's GFP product line in the green building rating systems listed below.

1.1 TERMS DEFINED

Before delving into a point by point assessment of the various rating systems, it is important first to clarify and define several terms commonly used therein:

USGBC: the United States Green Building Council: an industry body active in the green building industry which, among other activities, creates and delivers the LEED rating systems and related programs. The USGBC is the global originator of the LEED brand, and controls the global intellectual property rights, licensing them out to other national Green Building Council's such as the **CaGBC** for development in their own countries.

CaGBC: the Canada Green Building Council: an industry body active in the green building industry which, among other activities, is a licensee of the USGBC's LEED products, and which creates and delivers **LEED rating systems** and related programs in Canada.

LEED: "Leadership in Energy and Environmental Design": a green building program designed to quantify the environmental benefit of various green building strategies in a rating system format, which ultimately includes a certification program that places a certification label on the constructed building.

LEED Rating System: the LEED program includes several "Rating Systems" which have been defined for niche markets, such as "LEED for New Construction and Major Renovations" (LEED NC), or "LEED for Existing Buildings: Operation and Maintenance" (LEED EB:OM), or "LEED for Homes". Each rating system has the same general structure of **pre-requisites** and **credits**, and the same general process of **certification**, but the technical content will be customized to suit the intended target market, and the process may include specialized parties relevant only to that target market (such as home energy raters in the LEED for Homes rating system).

LEED Points: points are the central measuring stick in **LEED rating systems**, and are grouped by common strategies into **credits**. **LEED rating systems** will tend to have anywhere from 70 to ~130 total points, grouped into anywhere from 35 to 44 **credits**.

Many **credits** will offer multiple points for progressively greater achievement on the same theme, such as increased energy efficiency, increased water efficiency, etc.

LEED Pre-requisite: a single mandatory strategy for sustainability that has been defined and made measurable. Whereas **credits** include optional measures that earn **points**, pre-requisites are not optional and do not earn points: every LEED certified building is required to achieve all the pre-requisites in the relevant **rating system**.

LEED Credit: a single optional strategy for sustainability that has been defined and made measurable, which may include one or several **points**, and where increased **points** could be earned under the same strategy for increased performance (e.g.: for increased energy efficiency, increased water efficiency, or some other measure as defined in the Credit).

LEED Certification: the process used by the USGBC and CaGBC to audit a building's design and to verify its constructed performance. Buildings which meet all the **pre-requisites** in the **rating system**, and which achieve a minimum number of **points**, are eligible to be certified at the "Certified", "Silver", "Gold", and "Platinum" levels, each representing progressively greater achievement within the program. The nature and number of **pre-requisites** and the number of **points** required to meet each threshold varies with the specific LEED **rating system** (e.g.: LEED for Homes is different than LEED NC), but the process of certification is essentially the same in all LEED programs.

Local / Regional Content: goods are defined as being "local" or "regional" within all forms of LEED if they are extracted, processed, manufactured and shipped from within 800km (500mi) of the jobsite when shipped by truck; for Canadian forms of LEED, "local" or "regional" boundary criteria is expanded to within 2400km (1500mi) when shipped by rail or boat, or a proportional combination of these two (e.g. 600 km by truck, $\frac{3}{4}$ the truck limit, and 600 km by boat, $\frac{1}{4}$ the boat limit).

1.2 GREEN BUILDING RATING SYSTEMS

This report will assess the eligibility of GFP for points in the following rating systems:

1. **LEED 2009 for New Construction and Major Renovations (NC)**, owned and delivered by the US Green Building Council (USGBC) in the United States of America (USA) and internationally where other LEED programs or allied programs are not available – for construction of new commercial office and institutional buildings, including offices, institutional buildings (libraries, museums, churches, etc.), hotels and residential buildings of 4 or more habitable stories;
2. **LEED 2009 for Schools: New Construction and Major Renovations (NCS)**, owned and delivered by the USGBC, for certifying the construction or major renovation of academic buildings on K-12 school grounds;
3. **LEED Canada for New Construction and Major Renovations 2009 (NC)**, owned and delivered by the Canada Green Building Council (CaGBC) in Canada – for construction of new commercial office and institutional buildings, including offices, institutional buildings (libraries, museums, churches, etc.), hotels and residential buildings of 4 or more habitable stories;

4. **LEED 2009 for Retail (NCR)**, owned and delivered by the USGBC – for certifying new construction and major renovations of retail buildings (as defined by standard building codes), including grocery, restaurant, apparel, specialty, and banks;
5. **LEED 2009 for Commercial Interior (CI)**, owned and delivered by the USGBC, for certifying the interior of commercial buildings, applicable also for tenant improvements of new or existing office space.
6. **LEED 2006 Canada-Commercial Interior (CI)**, owned and delivered by the Canada Green Building Council (CaGBC) in Canada – for certifying the interior of commercial buildings, applicable also for tenant improvements of new or existing office space.
7. **LEED 2009 for Existing Buildings: Operation and Maintenance (EBOM)**, owned and delivered by the USGBC, for certifying ongoing operations of existing commercial and institutional buildings, including offices, retail and service establishments, institutional buildings (libraries, schools, museums, churches, etc.), hotels and residential buildings of four or more habitable stories;
8. **LEED Canada for Existing Buildings: Operation and Maintenance 2009 (EBOM)**, owned and delivered by the CaGBC, for certifying ongoing operations of existing commercial and institutional buildings (i.e. buildings regulated by Subsection 2.1.2 of Canada’s National Building Code), including offices, retail and service establishments, institutional buildings (libraries, schools, museums, churches, etc.), hotels and residential buildings of four or more habitable stories;
9. **LEED 2009 for Healthcare (HC)**, owned and delivered by the USGBC, for construction and operation of buildings that are predominantly institutional occupancies as defined by the local building code, such as acute care hospitals, where regulatory requirements have created particular needs;
10. **LEED for Homes (2008) (LH)**, owned and delivered by the USGBC, for construction of detached single-family low-rise residential buildings up to 3 stories tall;
11. **LEED Canada for Homes (2009) (LH)**, owned and delivered by the CaGBC, for construction of detached single-family low-rise residential buildings up to 3 stories tall;
12. **LEED for Homes Multifamily Mid-Rise (2010)**, owned and delivered by the USGBC, for construction of multifamily mid-rise residential buildings between 4 and 6 stories.

1.3 RATING METHODOLOGY

Each of the ratings systems will be analyzed in the same way, using the following table:

Table 1: Standard Evaluation Table

[Rating System] Credit	Total Available Points	Relevant Benefit of GFP Product	Potential GFP Point Contribution
(1)	(2)	(3)	(4)

This report will (1) reference the specific rating system that is being assessed, (2) list the total number of points which may potentially be affected by GFP products under the various credits defined in the referenced rating systems, (3) briefly explain how the product fulfills the intent of the referenced credits, and (4) include an opinion of the actual potential number of points that

GFP would directly contribute towards earning within the referenced rating system (which is typically expected to be less than the total points available for a given credit). The indicated “Potential GFP Point Contribution” reflects available industry standard resources and Mindscape’s professional experience in our own projects and is in no way a guarantee of future project performance.

Please note that it is important to understand the difference between claiming that a certain product will *earn* points as opposed to claiming that it will *contribute towards* points. The reality is that the **LEED programs reward buildings, not products**, so although your product may have been a vital contributor towards an earned point, it may not be the only contributor for that point. For example, if a point is earned by an insulated concrete form product (ICF) for recycled content in LEED 2009 (NC) under credit MRc2 because there was sufficient recycled content included in the concrete used on the job, then the ICF product will very likely have contributed strongly to this point. However, so may the concrete in the foundation and floors, and it may be true that the ICF portion of the total concrete used was not sufficient to earn a point without also including the content used in the floors.

It is recommended that DuROCK avoid needing to educate their clients on this sensitivity by simply stating that you “*contribute towards*” the points referenced in Sections 3.0 below. The added benefit to this approach is that you then have the ability to make seemingly larger claims which are no less true. For example, although it is true that in LEED 2009 NC (see Section 3.1 below) under credit MRc4 you would likely earn less than 1 point directly, it is equally true that you are contributing towards the full 2 points that are available under that credit. For clarity, you cannot claim to have *earned* points until after the Green Building Council’s auditing consultants have verified that your product was in fact responsible for the points directly, but you can always claim to be *contributing towards* the total number of points available in a given credit. Sample claims that could be made are included later in this report after each assessment table to offer further clarity.

2.0 PRODUCT STUDY FINDINGS & ASSUMPTIONS

No product performance or Volatile Organic Content (VOC) testing was directly performed by Mindscape for this assessment. For the purpose of this report, the potential LEED point contributions achieved by DuROCK's products were determined based on product performance specifications provided by DuROCK. DuROCK's GFP product line is a collection of paints (Primer #350, 550, 750, Eggshell #550, 750, Semi-gloss #550, 750, Flat #350, 550, 750, Dry Fall #550, 750, Ultra-ECO) with the following attributes:

- Comprised of acrylic, vinyl acrylic and acrylic latex, and using acrylic resins (glassy thermoplastic or thermosetting polymers);
- Primer #550, #750 are water-based paints;
- Eggshell #750¹ and Flat #550² are comprised of 100% latex acrylic;
- The #750 series, with the exception of Dry Fall, meet the MPI 147 standard², signifying exceptional paint coverage performance and durability;
- GFP #350, #550 and #750 is comprised of 15% (by weight) water that has been recovered and purified on-site from upstream industrial processes;³
- Ultra-ECO series is comprised of 40% post-consumer recycled paint³ and has the same VOC content as the #350 series;
- Low in VOCs (Volatile Organic Compounds) and odor;⁴
- Ultra-Eco series contains 93% regional content, and #350, #550 and #750 contains 88% regional content.³

¹ Accessed online 6/29/12 @ <http://www.greenfriendlypaint.com/eggshell.html>

² Accessed online 7/17/12 @ <http://www.greenfriendlypaint.com/semigloss.html>

³ Accessed online 6/29/12 @ <http://www.greenfriendlypaint.com/gfpleed.pdf>

⁴ Accessed online 6/29/12 @ <http://www.greenfriendlypaint.com/PRIMER350DS.pdf>

3.0 RATING SYSTEM ASSESSMENTS

3.1 LEED 2009 FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS

LEED 2009 NC	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRc4: Recycled Content	2	Projects earn 1-2 points if at least 10-20%, based on cost, of the total value of building materials is made of recycled content. The recycled content value of a material assembly is determined by weight. GFP's Ultra-ECO paint is made of 40% post-consumer recycled content, and is thus eligible to contribute towards points. See Appendix A for details on calculating recycled content value.	<1
MRc5: Regional Materials	2	Projects earn 1-2 points if at least 10-20%, based on cost, of the total value of building materials is made of local content. A material's local content value is determined by weight. For projects local to DuROCK's Woodbridge, ON manufacturing plant and locations of GFP paint raw material extraction/recovery, the following GFP paints may be eligible: Ultra-Eco series (93% regional content), and #350, #550 and #750 (88% regional content). Refer to Appendix A for local content value calculations.	<1
IEQc4.2: Low-Emitting Materials – Paints and Coatings	1	Projects can earn 1 point if paints & coatings applied to interior walls/ceiling comply with the following: <ol style="list-style-type: none"> 1. Paint must not exceed the VOC limits of Green Seal Standard GS-11 (v1993): 50 g/L (flat), 150 g/L (non-flat). The following GFP products comply: Eggshell #550 & #750, Semi-Gloss #750, Flat #350, #550 & #750, Dry Fall #550, #750, Ultra-ECO. 2. Primers must not exceed the VOC content of 100 g/L, as specified by the South Coast Air Quality Management district rule 1113, architectural coatings.⁵ The following GFP products comply: Primer #350, #550, #750. 	1
Total:	5	Of the 5 total LEED 2009 NC points which GFP contributes towards, it could directly take credit for up to at least 1 point.	>1

Based on the data shown in the above table, GFP may confidently claim that it makes a valuable contribution towards the available and related 5 points in the LEED 2009 NC rating system, and further that it could directly contribute up to at least 1 point.

⁵ South Coast Air Quality Management District, Table of Standards, VOC Limits; Access online 2012/6/05. http://www.aqmd.gov/prdas/coatings/table_of_standards.htm

3.2 LEED 2009 FOR SCHOOLS

LEED 2009 NCS	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRc4: Recycled Content	2	Projects earn 1-2 points if at least 10-20%, based on cost, of the total value of building materials is made of recycled content. The recycled content value of a material assembly is determined by weight. GFP's Ultra-ECO paint is made of 40% post-consumer recycled content, and is thus eligible to contribute towards points. See Appendix A for details on calculating recycled content value.	<1
MRc5: Regional Materials	2	Projects earn 1-2 points if at least 10-20%, based on cost, of the total value of building materials is made of local content. A material's local content value is determined by weight. For projects local to DuROCK's Woodbridge, ON manufacturing plant and locations of GFP paint raw material extraction/recovery, the following GFP paints may be eligible: Ultra-Eco series (93% regional content), and #350, #550 and #750 (88% regional content). Refer to Appendix A for local content value calculations.	<1
IEQc4.2: Low-Emitting Materials – Paints and Coatings	1	Projects can earn 1 point if paints and coatings applied to the building interior meet the testing and product requirements of the following: <i>California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers</i> ⁶ (incl. 1994 addenda). GFP products have not undergone this testing, however they would comply with the IEQc4.2 Performance/Intent Equivalent Alternative Compliance Path (PIEACP) issued on Sep. 29, 2009 . This PIEACP allows project teams to substitute this credit with LEED 2009 for New Construction IEQc4.2 – Paints & Coatings (see Section 3.1).	1
Total:	5	Of the 5 total LEED 2009 NCS points which GFP contributes towards, it could directly take credit for up to at least 1 point.	>1

Based on the data shown in the above table, GFP may confidently claim that it makes a valuable contribution towards the available and related 5 points in the LEED 2009 NCS rating system, and further that it could directly contribute up to at least 1 point.

⁶ Accessed online 2012/6/05 @: http://www.cal-iaq.org/phocadownload/standard_practice_testing_vocs_2004.pdf

3.3 LEED CANADA FOR NEW CONSTRUCTION AND MAJOR RENOVATION 2009

LEED Canada-NC 2009 Credit	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRC4: Recycled Content	2	Projects earn 1-2 points if at least 10-20%, based on cost, of the total value of building materials is made of recycled content. The recycled content value of a material assembly is determined by weight. GFP's Ultra-ECO paint is made of 40% post-consumer recycled content, and is thus eligible to contribute towards points. See Appendix A for details on calculating recycled content value.	<1
MRC5: Regional Materials	2	Projects earn 1-2 points if at least 10-20%, based on cost, of the total value of building materials is made of local content. A material's local content value is determined by weight. For projects local to DuROCK's Woodbridge, ON manufacturing plant and locations of GFP paint raw material extraction/recovery, the following GFP paints may be eligible: Ultra-Eco series (93% regional content), and #350, #550 and #750 (88% regional content). Refer to Appendix A for local content value calculations.	<1
IEQc4.2: Low-Emitting Materials – Paints and Coatings	1	Projects can earn 1 point if paints and coatings applied to interior walls/ceiling comply to the following: <ol style="list-style-type: none"> 1. Paint must not exceed the volatile organic compound (VOC) limits of Green Seal Standard GS-11 (v1993): 50 g/L (flat), 150 g/L (non-flat). The following GFP products comply: Eggshell #550 & #750, Semi-Gloss #750, Flat #350, #550 & #750, Dry Fall #550, #750, Ultra-ECO. 2. Primers must not exceed VOC content of 100 g/L, as specified by the South Coast Air Quality Management district rule 1113, architectural coatings.⁵ The following GFP products comply: Primer #350, #550, #750. 	1
Total:	5	Of the 5 total LEED Canada-NC 2009 points which GFP contributes towards, it could directly take credit for up to at least 1 point.	>1

Based on the data shown in the above table, GFP may confidently claim that it makes valuable contributions towards the available and related 5 points in the LEED Canada-NC 2009 rating system, and further that it could directly contribute up to at least 1 point.

3.4 LEED 2009 FOR RETAIL

LEED 2009 NCR Credit	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRc4: Recycled Content	2	Projects earn 1-2 points if at least 10-20%, based on cost, of the total value of building materials is made of recycled content. The recycled content value of a material assembly is determined by weight. GFP's Ultra-ECO paint is made of 40% post-consumer recycled content, and is thus eligible to contribute towards points. See Appendix A for details on calculating recycled content value.	<1
MRc5: Regional Materials	2	Projects earn 1-2 points if at least 10-20%, based on cost, of the total value of building materials is made of local content. A material's local content value is determined by weight. For projects local to DuROCK's Woodbridge, ON manufacturing plant and locations of GFP paint raw material extraction/recovery, the following GFP paints may be eligible: Ultra-Eco series (93% regional content), and #350, #550 and #750 (88% regional content). Refer to Appendix A for local content value calculations.	<1
IEQc4.2: Low-Emitting Materials – Paints and Coatings	1	Projects can earn 1 point if paints and coatings applied to interior walls/ceiling comply to the following: <ol style="list-style-type: none"> 1. Paint must not exceed the volatile organic compound (VOC) limits of Green Seal Standard GS-11 (v1993): 50 g/L (flat), 150 g/L (non-flat). The following GFP products comply: Eggshell #550 & #750, Semi-Gloss #750, Flat #350, #550 & #750, Dry Fall #550, #750, Ultra-ECO. 2. Primers must not exceed VOC content of 100 g/L, as specified by the South Coast Air Quality Management district rule 1113, architectural coatings ⁵ The following GFP products comply: Primer #350, #550, #750. 	1
Total:	5	Of the 5 total LEED 2009 NCR points which GFP contributes towards, it could directly take credit for up to at least 1 point.	>1

Based on the data shown in the above table, GFP may confidently claim that it makes valuable contributions towards the available and related 5 points in the LEED 2009 NCR rating system, and further that it could directly contribute up to at least 1 point.

3.5 LEED 2009 EXISTING BUILDINGS: OPERATION AND MAINTENANCE

LEED 2009 EBOM Credit	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRC3: Sustainable Purchasing – Facility Alterations and Additions	1	<p>A project can earn 1 point for implementing sustainable purchases for $\geq 50\%$ of total purchases for building renovations, demolitions, refits and new construction additions. Sustainable purchasing criteria includes:</p> <ol style="list-style-type: none"> $\geq 10\%$ postconsumer or 20% post-industrial recycled content: Eligible GFP products include Ultra-ECO paint (40% post-consumer recycled content); $\geq 50\%$ local content. For projects local to DuROCK's Woodbridge, ON manufacturing plant and locations of GFP paint raw material extraction/recovery, the following GFP paints may be eligible: Ultra-Eco series (93% regional content), and #350, #550 and #750 (88% regional content); Paint must not exceed the volatile organic compound (VOC) limits of Green Seal Standard GS-11 (v1993): 50 g/L (flat), 150 g/L (non-flat). Eligible GFP products include Eggshell #550 & #750, Semi-Gloss #750, Flat #350, #550 & #750, Dry Fall #550, #750, and Ultra-ECO. <p>Refer to Appendix A for details on recycled and regional content value calculations.</p>	<1
Total:	1	Of the 1 total LEED 2009 EBOM points which GFP contributes towards, it could directly take credit for up to less than 1 point.	<1

Based on the data shown in the above table, GFP may confidently claim that it make a valuable contribution towards the available and related 1 point in the LEED 2009 EBOM rating system, and further that it could directly contribute up to less than 1 point.

3.6 LEED CANADA - EXISTING BUILDINGS: OPERATION AND MAINTENANCE 2009

LEED Canada – EBOM 2009 Credit	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRc3: Sustainable Purchasing – Facility Alterations and Additions	1	<p>A project can earn 1 point for implementing sustainable purchases for ≥ 50% of total purchases for building renovations, demolitions, refits and new construction additions. Sustainable purchasing criteria includes:</p> <ol style="list-style-type: none"> 1. ≥ 10% postconsumer or 20% post-industrial recycled content: Ultra-ECO paint is made of 40% post-consumer recycled content (paint) and would thus be eligible; 2. ≥ 50% local content. For projects local to DuROCK's Woodbridge, ON manufacturing plant and locations of GFP paint raw material extraction/recovery, the following GFP paints may be eligible: Ultra-Eco series (93% regional content), and #350, #550 and #750 (88% regional content); 3. Eligible GFP products include Ultra-Eco series (93% local), and #350, #550 and #750 (88% local); 4. Paint must not exceed the volatile organic compound (VOC) limits of Green Seal Standard GS-11 (v1993): 50 g/L (flat), 150 g/L (non-flat). Eligible GFP products include Eggshell #550 & #750, Semi-Gloss #750, Flat #350, #550 & #750, Dry Fall #550, #750, and Ultra-ECO. <p>Refer to Appendix A for details on recycled and regional content value calculations.</p>	1
Total:	1	Of the 1 total LEED Canada EBOM 2009 points which GFP contributes towards, it could directly take credit for up to less than 1 point.	<1

Based on the data shown in the above table, GFP may confidently claim that it make a valuable contribution towards the available and related 1 points in the LEED Canada EBOM 2009 rating system, and further that it could directly contribute up to less than 1 point.

3.7 LEED 2009 FOR HEALTH CARE

LEED 2009 HC Credit	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRc3: Sustainably Sourced Materials and Products	4	<p>Projects earn 1 point (max. of 4 pts) for each 10% of total value of all building materials and products used in the project that are sustainably sourced. Product criteria for sustainable sourcing includes the following:</p> <ol style="list-style-type: none"> 1. Recycled content, based on the fraction of a material's weight containing recycled content. Eligible products include GFP's Ultra-ECO paint (40% post-consumer recycled content); 2. Local content, based on the fraction of a material's weight containing local content. For projects local to DuROCK's Woodbridge, ON manufacturing plant and locations of GFP paint raw material extraction/recovery, the following GFP paints may be eligible: Ultra-Eco series (93% regional content), and #350, #550 and #750 (88% regional content). <p>See Appendix A for details on recycled and local content calculations.</p>	<1
Total:	4	Of the 4 total LEED 2009 Healthcare points which GFP contributes towards, it could directly take credit for <1 point.	<1

Based on the data shown in the above table, GFP may confidently claim that it make a valuable contribution towards the available and related 4 points in the LEED 2009 Healthcare rating system, and further that it could directly contribute up to 1 point.

3.8 LEED 2009 FOR COMMERCIAL INTERIOR

LEED 2009 CI	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRC4: Recycled Content	2	Projects earn 1-2 points if at least 10-20%, based on cost, of the total value of all building materials is made of recycled content. The recycled content value of a material assembly is determined by weight. Eligible GFP products include Ultra-ECO paint (40% post-consumer recycled content). See Appendix A for details on calculating recycled content value.	<1
MRC5: Regional Materials	2	Projects earn 1-2 points if at least 20-30%, based on cost, of the total value of building materials is made of local content. A material's local content value is determined by weight. For projects local to DuROCK's Woodbridge, ON manufacturing plant and locations of GFP paint raw material extraction/recovery, the following GFP paints may be eligible: Ultra-Eco series (93% regional content), and #350, #550 and #750 (88% regional content). Refer to Appendix A for local content value calculations.	<1
IEQc4.2: Low-Emitting Materials – Paints and Coatings	1	Projects can earn 1 point if paints and coatings applied to interior walls/ceiling comply to the following: <ol style="list-style-type: none"> 1. Paints must not exceed the volatile organic compound (VOC) limits of Green Seal Standard GS-11 (v1993): 50 g/L (flat), 150 g/L (non-flat). The following GFP products comply: Eggshell #550 & #750, Semi-Gloss #750, Flat #350, #550 & #750, Dry Fall #550, #750, Ultra-ECO; 2. Primers must not exceed VOC content of 100 g/L, as specified by the South Coast Air Quality Management district rule 1113, architectural coatings.⁵ The following GFP products comply: Primer #350, #550, #750. 	1
Total:	5	Of the 5 total LEED 2009 CI points which GFP contributes towards, it could directly take credit for up to at least 1 point.	>1

Based on the data shown in the above table, GFP may confidently claim that it makes valuable contributions towards the available and related 5 points in the LEED 2009 Commercial Interior rating system, and further that it could directly contribute up to at least 1 point.

3.9 LEED 2006 FOR CANADA COMMERCIAL INTERIOR

LEED 2006 - Canada Commercial Interior Credit	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRc4: Recycled Content	1	Projects earn 1 point if at least 10%, based on cost, of the total value of building materials is made of recycled content. The recycled content value of a material assembly is determined by weight. Eligible GFP products include Ultra-ECO paint (40% post-consumer recycled content). See Appendix A for details on calculating recycled content value.	<1
MRc5.1, 2: Regional Materials	1	Projects earn 1 point if at least 20%, based on cost, of the total value of building materials is made of local content. A material's local content value is determined by weight. For projects local to DuROCK's Woodbridge, ON manufacturing plant and locations of GFP paint raw material extraction/recovery, the following GFP paints may be eligible: Ultra-Eco series (93% regional content), and #350, #550 and #750 (88% regional content). Refer to Appendix A for local content value calculations.	<1
IEQc4.2: Low-Emitting Materials – Paints and Coatings	1	Projects can earn 1 point if paints and coatings applied to interior walls/ceiling comply to the following: <ol style="list-style-type: none"> 1. Paint must not exceed the volatile organic compound (VOC) limits of Green Seal Standard GS-11 (v1997): 50 g/L (flat), 150 g/L (non-flat). The following GFP products comply: Eggshell #550 & #750, Semi-Gloss #750, Flat #350, #550 & #750, Dry Fall #550, #750, Ultra-ECO; 2. Primers must not exceed VOC content of 100 g/L, as specified by the South Coast Air Quality Management district rule 1113 (v2004), architectural coatings.⁵ The following comply: Primer #350, #550, #750. 	1
Total:	3	Of the 3 total LEED Canada for Commercial Interior points which GFP contributes towards, it could directly take credit for up to at least 1 point.	>1

Based on the data shown in the above table, GFP may confidently claim that it makes valuable contributions towards the available and related 3 points in the LEED Canada for Commercial Interior rating system, and further that it could directly contribute up to at least 1 point.

3.10 LEED 2010 FOR HOMES MULTIFAMILY MID-RISE

LEED 2012 Homes Multifamily Mid-rise Credit	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRC2.2: Environmentally Preferable Products	8	<p>Projects can earn up to 8 points for specifying that major building components be comprised of environmentally preferable products (FSC, recovered, reused, recycled), low emissions, and/or local content. 0.5 point is awarded for each building component that complies with one of the above criteria. Criteria applicable to interior wall and ceiling paints and coatings include the following:</p> <ol style="list-style-type: none"> 1. 25% post-consumer and/or 50% post-industrial recycled content. Eligible GFP products include Ultra-ECO paint (40% post-consumer recycled content); 2. Must not exceed the volatile organic compound (VOC) limits of Green Seal Standard GS-11 (v1993): 50 g/L (flat), 150 g/L (non-flat). Eligible GFP products include the following: Eggshell #550 & #750, Semi-Gloss #750, Flat #350, #550 & #750, Dry Fall #550, #750, Ultra-ECO. 	1
Total:	8	Of the 8 total LEED for Homes Multifamily Mid-rise points which GFP contributes towards, it could directly take credit for up to 1 point.	1

Based on the data shown in the above table, GFP may confidently claim that it makes valuable contributions towards the available and related 8 points in the LEED for Homes Multifamily Mid-rise rating system, and further that it could directly contribute up to 1 point.

3.11 LEED 2008 FOR HOMES

LEED 2008 Homes Credit	Total Available Points	Relevant Benefit of GFP	Potential GFP Point Contribution
MRc2.2: Environmentally Preferable Products	8	<p>Projects can earn up to 8 points for specifying that major building components be comprised of environmentally preferable products (FSC, recovered, reused, recycled), low emissions, and/or local content. 0.5 point is awarded for each building component that complies with one of the above criteria. Criteria applicable to interior wall and ceiling paints and coatings include the following:</p> <ol style="list-style-type: none"> 1. 25% post-consumer and/or 50% post-industrial recycled content. Eligible GFP products include Ultra-ECO paint 40% post-consumer recycled content); 2. Must not exceed the volatile organic compound (VOC) limits of Green Seal Standard GS-11 (v1993): 50 g/L (flat), 150 g/L (non-flat). Eligible GFP products include the following: Eggshell #550 & #750, Semi-Gloss #750, Flat #350, #550 & #750, Dry Fall #550, #750, Ultra-ECO. 	1
Total:	8	Of the 8 total LEED for Homes points which GFP contributes towards, it could directly take credit for up to 1 point.	1

Based on the data shown in the above table, GFP may confidently claim that it makes valuable contributions towards the available and related 8 points in the LEED for Homes rating system, and further that it could directly contribute up to 1 point.

3.12 LEED 2009 CANADA FOR HOMES

LEED – Canada for Homes Credit	Total Pts Available	Relevant Benefit of GFP	Potential GFP Point Contribution
MRc2.2: Environmentally Preferable Products	8	<p>Projects can earn up to 8 points for specifying that major building components be comprised of environmentally preferable products (FSC, recovered, reused, recycled), low emissions, and/or local content. 0.5 point is awarded for each building component that complies with one of the above criteria. Criteria applicable to interior wall and ceiling paints and coatings include the following:</p> <ol style="list-style-type: none"> 1. 25% post-consumer and/or 50% post-industrial recycled content. Eligible GFP products include Ultra-ECO paint 40% post-consumer recycled content); 2. Must not exceed the volatile organic compound (VOC) limits of Green Seal Standard GS-11 (v1993): 50 g/L (flat), 150 g/L (non-flat). Eligible GFP products include the following: Eggshell #550 & #750, Semi-Gloss #750, Flat #350, #550 & #750, Dry Fall #550, #750, Ultra-ECO. 	1
Total:	8	Of the 8 total LEED Canada for Homes points which GFP contributes towards, it could directly take credit for up to 1 point.	1

Based on the data shown in the above table, GFP may confidently claim that it makes valuable contributions towards the available and related 8 points in the LEED Canada for Homes rating system, and further that it could directly contribute up to 1 point.

4.0 ADDITIONAL MARKETABLE ENVIRONMENTAL ATTRIBUTES

Noting that the above rating systems award buildings, and not products, there are often significant and meaningful benefits offered by product suppliers which are noteworthy, but which unfortunately cannot earn points in these building rating systems. In addition to the contributions made in the above green rating systems, GFP's products have the following noteworthy environmental benefit and should be promoted:

- GFP #350, #550 and #750 is comprised of 15% (by weight) water that has been recovered and purified on-site from upstream industrial processes³;
- GFP products are designed with mould/mildew resistance, providing enhanced indoor air quality for building occupants as well as protection and longevity of the building envelope;
- #750 series, with the exception of Dry Fall, meets the MPI 147 standard² (Master Painters Institute), signifying exceptional paint coverage and durability characteristics.
- DuROCK incorporates on-site solar PV electricity generation at their manufacturing facilities to offset some of their energy consumption.

It is recommended that these benefits be expressed as the legitimate benefits they are, and communicated in targeted and appropriate ways, alongside the benefits referenced to the specific rating systems above.

5.0 CONCLUSIONS & RECOMMENDATIONS

The various green building rating systems recognize top industry leadership in building design and construction. Regardless of the type of building constructed, GFP will contribute positively towards a more sustainable built environment, and is recognized in the various green building rating systems. A performance summary of GFP's products in the various green building programs outlined in this report is shown below in Table 2.

Table 2: GFP Green Building Program Performance Summary

Green Building Rating System	LEED Point Threshold				GFP Related Points	Potential GFP Point Contribution
	Certified	Silver	Gold	Platinum		
LEED 2009 NC	40 - 49	50 - 59	60 - 79	≥ 80	5	>1
LEED 2009 NC Schools					5	>1
LEED Canada - NC 2009					5	>1
LEED 2009 Retail					5	>1
LEED 2009 EBOM					1	<1
LEED Canada – EBOM 2009					1	<1
LEED 2009 Healthcare					4	<1
LEED 2009 Commercial Interior					5	>1
LEED Canada – Commercial Interior 2006	21 - 26	27 - 31	32 - 41	42 - 57	3	>1
LEED Homes Multifamily Mid-Rise (2010)	45 - 59	60 - 74	75 - 89	90 - 136	8	1
LEED Homes (2008)					8	1
LEED Canada-Homes (2009)					8	0.5

It should be noted that DuROCK's potential for directly contributing points to a particular LEED project depends on several factors including which other interior paint products are being used.

Lastly, because of the relationship Mindscape enjoys with www.OntarioGreenSpec.ca, we have added your product into their listing database online under the category "Materials and Resources / Paint". For additional membership benefits and promotional opportunities, please refer to http://www.ontariogreenspec.ca/membership_rates_benefits. You may wish to consider promotional opportunities both there and in other online green databases such as U.S. based Greenspec® (see www2.buildinggreen.com/about/gc-listing-process).

APPENDIX A: RECYCLED AND REGIONAL CONTENT CALCULATIONS

Table A.1: LEED 2009 NC, LEED 2009 NCS, LEED 2009 Canada-NC, LEED 2009 NCR, LEED 2009 EBOM, LEED 2009 Canada-EBOM, LEED 2009 HC, LEED 2009 CI, LEED 2006 Canada-CI recycled content calculation for MRc4

$$\text{Recycled Content Value (\$)} = \left(\begin{array}{c} \% \text{ Postconsumer} \\ \text{Recycled Content} \end{array} \times \begin{array}{c} \text{Materials} \\ \text{Cost} \end{array} \right) + 0.5 \left(\begin{array}{c} \% \text{ Preconsumer} \\ \text{Recycled Content} \end{array} \times \begin{array}{c} \text{Materials} \\ \text{Cost} \end{array} \right)$$

$$\text{Percentage Recycled Content} = \frac{\text{Total Recycled Content Value (\$)}}{\text{Total Materials Cost}} \times 100$$

Table A.2: LEED 2009 NC, LEED 2009 NCS, LEED 2009 Canada-NC, LEED 2009 NCR, LEED 2009 EBOM, LEED 2009 Canada-EBOM, LEED 2009 HC, LEED 2009 CI, LEED 2006 Canada-CI regional content calculation for MRc5

$$\text{Percentage Local Materials} = \frac{\text{Total Cost of Local Materials (\$)}}{\text{Total Materials Cost (\$)}} \times 100$$