



Environmental recap Greenstar/Homestar Specifying

Resene

the paint the professionals use

100% KIWI
since 1946
NZ OWNED & OPERATED

Resene
GROUP

Resene
Automotive & Light Industrial

Altex
Yacht & Boat Paint

carboline[®]
Coatings - Linings - Fireproofing

Resene
Construction Systems

Industry Environmental recap

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Construction Systems

Green focus is normal - The major paint manufacturers in NZ have been focussing on environmental & sustainability issues for many years with Resene the first to have Environmental Choice NZ approved products in 1996



Product Certification
Since 1996



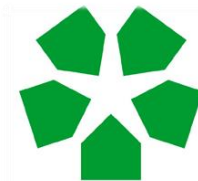
VOC free products
Since 2004



Recycling
Since 2004



Responsible contracting
Since 2004



homestar™
Know your home



Healthy Buildings
Since 2006

Major manufacturers focus on all aspects of the Industry, not just paint products alone



Resene
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The Resene Paintwise Paint & packaging recycling programme launched in 2004 & lead the way in the Industry with the other major manufacturers now also managing their Paint take back programmes through 3R



Over 3 million packs have been collected. Of this over 400,000kg of steel has been recycled and over 200,000kg of plastic. Over 500,000 litres of solventborne paint has been sent to solvent recovery and over 250,000 litres of paint has been donated to cover graffiti and other community projects.



Major manufacturers have had Ultra Low & Zero VOC products available for many years



VOC 0 g/L
Since 2005

VOC 1 g/L
Since 2008

VOC 4 g/L
Since 2005

VOC 0 g/L
Since 2007

The focus continues to reduce or eliminate VOC's



Resene
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Some traditional solvent based Alkyd & Urethanes products are now being released as waterborne Hybrid versions



Resene strongly believes that it is better to apply a high quality product that will last, than apply an inferior product that will break down faster, impacting on the environment and requiring more frequent maintenance and repainting



Resene
the paint the professionals use

Green/Eco labelling recap

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There are a number of “Green/Eco Labels” however in the Paint Industry Environmental Choice NZ approval overwhelmingly satisfies requirements



NZ's only Government owned and endorsed Type 1 Eco label

Ecolabelling in New Zealand



There are an increasing number of guidelines, programmes and certifications in New Zealand to indicate environmental preferability, many of which have their own ecolabels or logos. The table below summarises a number of those in an effort to clarify how they differ from each other, and to ensure a greater understanding of what they do or do not offer. Overleaf is further explanation of the types of labels and a glossary of terms to assist with establishing which best suits your organisation, service or product.

Environmental preferability options

NAME	TYPE	DESCRIPTION
 Environmental Choice New Zealand www.environmentalchoice.org.nz	1	New Zealand's only Type 1 Government-owned ecolabelling programme, Environmental Choice deals specifically with products and services, not organisations. Its licensing process is against rigorous, transparent, independently developed specifications that take into account the lifecycle impact of the product or service. It meets the ISO 14020/24 principles.
 Enviro-Mark www.enviro-mark.com	EMS	Enviro-Mark is an environmental management system certification programme (not a product certification programme). The EMS covers how organisations manage their environmental impacts. Organisations can achieve one of five levels of certification. The final step meets the requirements of ISO 14001.
 Life Cycle Assessment www.iso.org	LCA	Life Cycle Assessment considers the environmental aspects and potential impacts throughout a product's life - from raw material acquisition through its production, use and disposal. An internationally accepted framework for LCA methodology is defined in ISO standards 14040 and 14044.
 Forest Stewardship Council info.fsc.org	Single issue	The Forest Stewardship Council provides two types of certification: Forest Management Certification for sustainable forest management practices and Chain of Custody certification for tracking forest products in the supply chain.
 Programme for the Endorsement of Forest Certification www.pefc.org	Single issue	Programme for the Endorsement of Forest Certification provides two types of certification: Forest Management Certification for sustainable forest management practices and Chain of Custody certification for tracking forest products in the supply chain.
Declare. www.declareproducts.com	2	Declare is a 'nutrition-label' for building products, developed to assist those going through the Living Building Certification process. It includes a product database to streamline the material specification and certification process. This is based on manufacturers' self-declaration.
 carbonZero www.enviro-mark.com	CMS	carbonZero is for organisations, products, services or events to offset their carbon emissions. Certified against ISO 14064-1 for organisations or PAS 2050 for products or services.
 Energy Star www.energywise.govt.nz	Single issue	The Energy Efficiency and Conservation Authority (EECA) awards the Energy Star mark to products and appliances with superior energy efficiency within their category. It is a voluntary programme where industry partners identify and promote superior energy efficient products.
 Certified Emissions Management and Reduction Scheme www.enviro-mark.com	CMS	The Certified Emissions Management and Reduction Scheme is for organisations, products or services to make a measurement and reduction claims about their carbon footprints. Certified against ISO 14064-1 for organisations or PAS 2050 for products or services.
 Environmental Product Declaration www.iso.org	EPD	EPD's are independently verified public declarations of environmental performance of products for all or parts of the lifecycle. Based on ISO 14025 (2006) and LCA.
 ISO 14001 www.iso.org	EMS	An internationally accepted standard that sets requirements for environmental management systems for organisations.

Note: The table is meant as a guide, and is by no means an exhaustive list. More information about each programme can be found on their individual websites.

Resene, Dulux, Paint Plus & Wattyl have numerous ECNZ paint products which will always be waterborne & low, ultra low, or zero VOC



Environmental Choice New Zealand

- Home
- About Us
- Media
- Specifications
- Products & Services
- Our Licensees
- Get Licensed
- Contact

Specifications > (EC-07-18) Paints

(EC-07-18) Paints



Companies Using This Specification

Below is a list of the companies that have products with the Environmental Choice licence in this category of eco-friendly paint products.

Company	Product Name
Dulux Ltd	View Products
PaintPlus Colour Systems Ltd	View Products
Resene	View Products
Resene Automotive & Light Industrial	View Products
Resene Construction Systems	View Products
Wattyl (NZ) Limited	View Products

Certification is required for Individual products not just the organisation



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Others Eco/Green labels are often aligned with a specific programme



Ecolabelling in New Zealand



There are an increasing number of guidelines, programmes and certifications in New Zealand to indicate environmental preferability, many of which have their own ecolabels or logos. The table below summarises a number of those in an effort to clarify how they differ from each other, and to ensure a greater understanding of what they do or do not offer. Overleaf is further explanation of the types of labels and a glossary of terms to assist with establishing which best suits your organisation, service or product.

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 Energy Star www.energywise.govt.nz	Single issue	The Energy Efficiency and Conservation Authority (EECA) awards the Energy Star mark to products and appliances with superior energy efficiency within their category. It is a voluntary programme where industry partners identify and promote superior energy efficient products.
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Note: The table is meant as a guide, and is by no means an exhaustive list. More information about each programme can be found on their individual websites.

Be certain to understand the requirements of Eco Labels, what "programme" they sit within, and which company has the Eco Label before specifying



Brief overview of Carbon & EPD's

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Coatings - Linings - Fireproofing

Resene 
Construction Systems

The drive continues in the Industry on all environmental & sustainability factors with Carbon reduction now a significant focus for the major manufacturers

- Carbon reduction journey well underway within the paint industry
- We are wide in our scope of works - sourcing raw materials globally, transportation, manufacturing, distribution & sales channels with NZ
- All of supply chain being reviewed
- Focus on what will make a difference and is measurable
- Resene will be accurate & honest about what we are doing
- Resene will not “green wash”
- EPD journey underway for major manufacturers



Bold paint environmental &/or product performance claims by suppliers should be thoroughly researched



NZGBC Greenstar/Homestar



Paint component is more simple than you may think



Homestar - A comprehensive, Independent rating tool that measures health, warmth, and efficiency of new homes in NZ.



Technical Manual



Homestar V4 requires 50% or more of paint by volume to be ECNZ (waterborne, Low VOC) - this is very easily achieved as most of your paint will be ECNZ when using the major paint manufacturers



PAINT IS INCLUDED IN:

MAT1 - Sustainable Materials

Applied Coatings (product certification - ECNZ)
Interior & exterior applied on-site
50% of total volume = 2 points

MAT2 - Healthy Materials

Applied coatings (product certification - ECNZ)
Interior applied on-site
50% of total volume = 1 point

MAN3 - Responsible Contracting

Resene Eco Decorator = 0.5 point



Max total = 3.5 points

There is no difference in paint requirements or points across Homestar 6 - 10



Homestar V5 is currently being piloted - with some minor changes from V4 in paint requirements



homestar[®]
v5 Technical Manual



Category headings have changed and Healthy Materials now requires 80% or more ECNZ - again easily achieved



PAINT IS INCLUDED IN:

HC7 - Healthy Materials

Applied Coatings (Product certification - ECNZ)

Interior only

80% of total volume = 0.5 point

EN3 - Sustainable Materials

Applied coatings (ECNZ)

Interior & exterior applied onsite and in prefabrication yard

50% of total volume = 2 points

EN6 - Responsible Contracting

Resene Eco Decorator = 0.5 point



Max total = 3 points

Sustainable materials now include coatings applied off-site in prefabrication yard to cover prefab/modular builds and steelwork etc



Greenstar is for Buildings and is an internationally recognised rating system for design, construction, and operations of buildings, fitouts, and communities



Green Star Design and As Built

New Zealand v1.0

Submission Guidelines



Green Star Interiors

New Zealand v1.0

Submission Guidelines



Greenstar Design & As Built = new buildings
Greenstar Interiors = refurb's & fitouts



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Greenstar Design & As-Built requires 95% of paint product to have Product Certification or be within TVOC limits to achieve 1 point. An additional point can be gained by exceeding Greenstar benchmarks using ultra Low VOC paint



Green Star Design and As Built

Interior paint is included in:

Credit 13.1- Indoor Air Pollutants
95% of total volume = 1 point
(Product Certification or TVOC)



Innovation: Exceeding Greenstar Benchmarks
Ultra Low VOC maximum of TVOC content of 5g/L
50% of total volume = 1 point

Max total = 2 points

Paint applied off-site excluded, Exterior Paint included in Credit 21 -Product sustainability value calculation



Resene
the paint the professionals use

Greenstar Interiors (Refurb/fitout) requires 95% of paint product to have Product Certification or be within TVOC limits to achieve 2 points. An additional point can be gained by exceeding Greenstar benchmarks using Ultra Low VOC paint



Green Star Interiors

Interior paint is included in:

Credit 12.1- Indoor Air Pollutants
95% of total volume = 2 points
(Product Certification or TVOC)



Innovation: Exceeding Greenstar Benchmarks
Ultra Low VOC maximum of TVOC content of 5g/L
50% of total volume = 1 point

Max total = 3 points

Paint applied off-site excluded



Resene
the paint the professionals use

Exceeding Greenstar benchmarks by use of Ultra Low VOC products is an easy way to gain an additional 1 point



Ultra Low VOC maximum of TVOC content of 5g/L
50% of total volume = 1 point



VOC 0 g/L
Since 2005

VOC 1 g/L
Since 2008

VOC 4 g/L
Since 2005

VOC 0 g/L
Since 2007

Most Greenstar projects with reasonable plasterboard wall and ceiling areas etc could easily gain the additional point



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FAQ's





FAQ's Product Certification & TVOC



There are 2 methods for demonstrating paint complies - Product Certification OR Laboratory testing

Guidance Note: Greenstar Design & As Built V1.0



Total VOC (TVOC) values must reflect the final ready to use product, inclusive of tints (in the case of paints) and made in grams of VOC per litre (g/L) of ready to use product.

There are two methods for demonstrating that a paint, adhesive or sealant complies with this criterion:

- A. Product certification in accordance with 13.1.1A; or
- B. Laboratory testing in accordance with 13.1.1B.

A combination of methods can be used to demonstrate compliance.

13.1.1A Product Certification

The product is certified under a recognised Product Certification Scheme. The current list of recognised schemes is shown on the GBCA website: <http://new.gbca.org.au/product-certification-schemes/>.

The certificate must be current at the time of project registration or submission and list the relevant product name and model.

13.1.1B Laboratory Testing

TVOC limits for paints, adhesives or sealants are detailed in Table 13.1.1. Most adhesives and sealants are addressed in the '*General purpose adhesives and sealants*' category of the table, unless they clearly belong in the other specialised product categories.



It's not uncommon for the word "OR" to be missed



Option A - Product Certification - If a paint product has Environmental Choice NZ (ECNZ) approval it is acceptable

13.1.1A - Product Certification



VOC limits are met within the ECNZ approvals system



Option B - Laboratory Testing and reference to the VOC limits in table 13.1.1 is only required if a product does not have ECNZ certification

Guidance Note: Greenstar Design & As Built V1.0



13.1.1B - Laboratory Testing

Table 13.1.1: Maximum TVOC Limits for Paints, Adhesives and Sealants

Product Category	Max TVOC content in grams per litre (g/L) of ready to use product.
General purpose adhesives and sealants	50
Interior wall and ceiling paint, all sheen levels	16
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65
One and two pack performance coatings for floors	140
Acoustic sealants, architectural sealant, waterproofing membranes and sealant, fire retardant sealants and adhesives	250
Structural glazing adhesive, wood flooring and laminate adhesives and sealants	100



NOTE: Table 13.1.1 VOC limits are NOT the VOC limits for ECNZ approved paint products



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FAQ's VOC Test procedures & Certificates



VOC Test procedures - Resene and others work within the Australian Paint Approval Scheme (APAS) to provide VOC levels. VOC levels are by way of theoretical calculations



Resene VOC summary

Staff in the Quality Assurance Laboratory of Resene Paints Ltd calculate the potential Volatile Organic Compound (VOC) levels in a product from the characteristics and quantities of raw materials used. This calculation is done according to the Australian Paint Approval Scheme (APAS) which defines VOCs as any organic compound included in a paint formulation (either as individual ingredients of the formula or as part of an intermediate raw material), which has a vapour pressure more than 0.01mm Hg at 21°C; or an initial boiling point <250°C measured at a standard pressure of 101.3kPa.

Please note the VOC levels listed below reflect the worst case scenario across the full range of coloured bases available for the product listed. Resene also has a full range of Resene Decorative Colourants with no added VOCs, so all decorative products can be tinted without adding any additional VOCs.



Product	Approx VOC grams Per litre	Also Environmental Choice NZ approved
Resene Acrylic Undercoat	35	Yes
Resene Aluminium Wood Primer	325	-
Resene Aquaclear	95	Yes
Resene Aquapel (waterborne)	Less than 10	Yes





GUIDANCE

Paint and Adhesives Testing Methods

The following VOC test methods are relevant to paints:

- ISO Method 17895 (2005), for a material with a presumed VOC content <1%;
- ISO Method 11890-2 (2006), for a material with a presumed VOC <15%;
- ISO Method 11890-1 (2007), for a material with a presumed VOC content >15%; and
- ASTM D3960, which is comprised of four individual testing procedures that measures TVOC (D2369) as well as density (D1475) and water content (D4017). Exempt compounds (D4457) must not be subtracted in the calculation of VOC content.

The testing method for adhesive and sealants is the ASTM D3960 as detailed for paints as well as South Coast Air Quality Management District Rule 1168.

Theoretical VOC Calculations

Where TVOC content for the individual items is known, a theoretical calculation based on the subtotal of the known VOC values of the product's raw material components is acceptable.





DEFINITIONS

Safety Data Sheet (SDS)

A document that provides information on the properties of hazardous chemicals, and guidance on the safe handling, storage and disposal of these substances.

VOC Test Certificate

A test certificate by a laboratory accredited by National Association of Testing Authorities (NATA) or other ISO/IEC 17025 accredited laboratory. The test certificate must include:

- The numerical result;
- The test method used to obtain the results; and
- For tinted products, the TVOC value must be inclusive of tints.

For paints, adhesives and sealants, a safety data sheet (SDS) that includes VOC information is also an acceptable test certificate. The VOC content of the product must be presented numerically in grams per litre of ready-to-use product and also include a statement as to how the result was obtained, meaning either through experimental testing or a theoretical calculations.

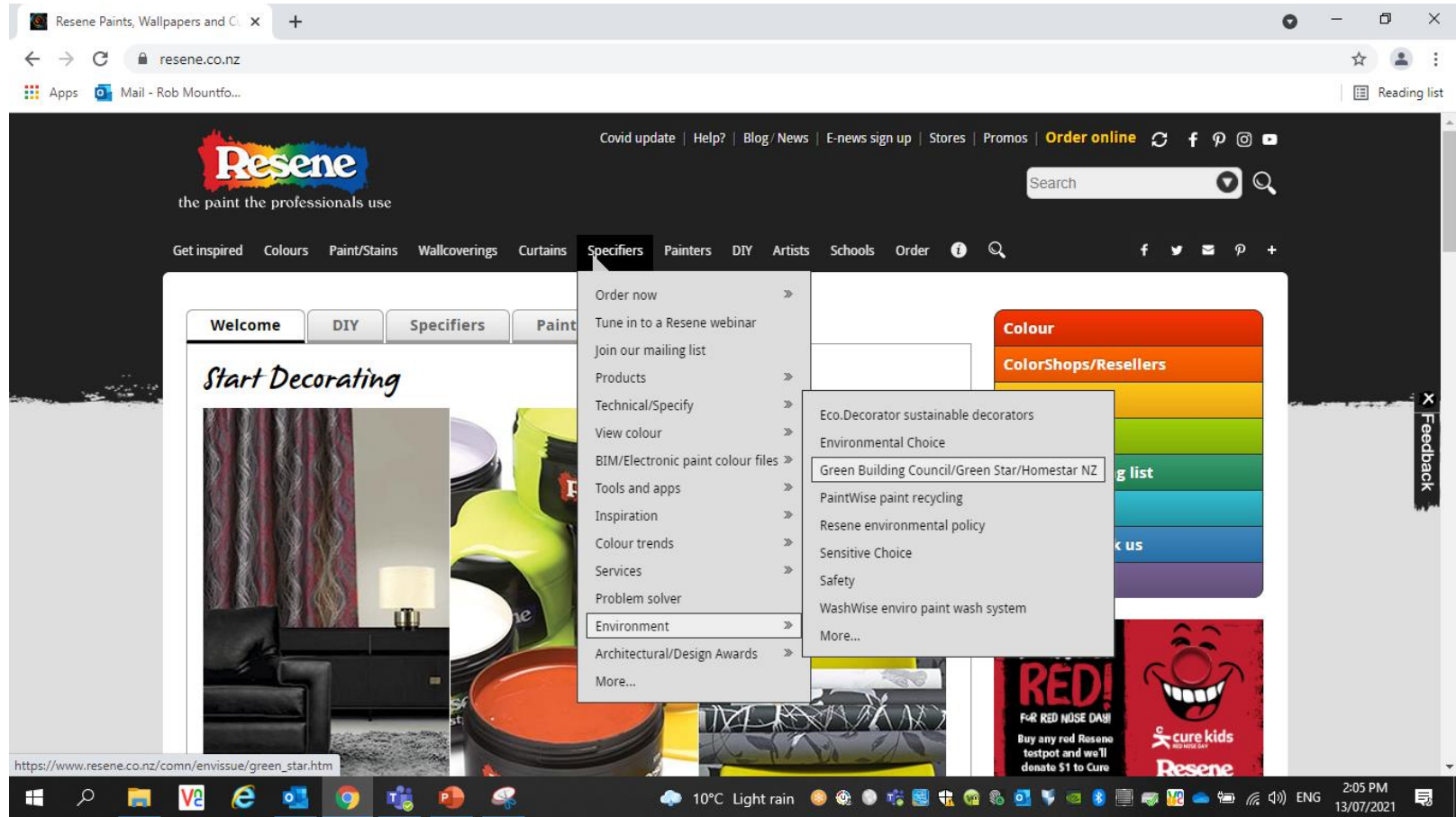




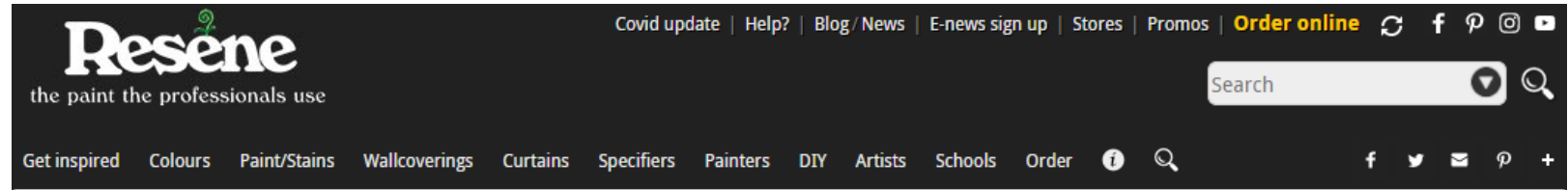
FAQ's Resources



NZGBC Homestar & Greenstar resources are located in 1 spot on the Resene Website



Comprehensive source of all NZGBC Greenstar & Homestar resources you will require



Environmental Choice	Eco.Decorator sustainable decorators	Product list	VOC summary	CoolColour™ technology	PaintWise paint recycling	PaintCrete/GlassCrete
WashWise wash system	Awards	Dealing with graffiti	Green Star/Home Star NZ/Green Building Council	How to dispose of paint	How to clean brushes/rollers	

New Zealand Green systems and resources - Green Star NZ

The first Green Star NZ rating tool was launched in new Zealand in 2006 with Green Star NZ - Office Design.

As of October 2019 the following tools are available for rating buildings:

Green Star (Commercial)

- [Green Star Design & As Built NZ v1.0 \(New Builds\)](#)
- [Green Star Interiors NZ v1.0 \(Fit-outs and Refurbs\)](#)

Homestar (Residential)

- [Homestar v4 \(New Builds\)](#)

Other

- [Links to supporting resources for Green Star NZ and Homestar NZ accreditation](#)



Greenstar Cheat Sheet



- Interior Paint = Environmental Choice NZ - 95% of volume which leaves room for some solvent based paint if needed
- Interior paint applied On-site only (applied off-site is excluded)
- Design & As Built - Exterior paint is included in Credit 21 -Product sustainability value calculation
- Gaining additional point using Ultra Low VOC products is not difficult
- Do not refer to the VOC levels in table 13.1.1 if a product has Environmental Choice NZ.
- No VOC test certificates required, Data Sheets with VOC info are acceptable
- Manufacturers Website's should have all resources required
- Talk your Paint Rep & NZGBC Technical team
- Consider becoming a GSAP (Green Star Accredited Professional)



Specifying Homestar & Greenstar

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Construction Systems

Homestar specifications are typically the same as any standard new residential project. Any spec platform can be used

Homestar (minimum 50% ECNZ)

- Specifications for Homestar projects are typically the same as a standard new residential project
- All waterborne coatings specified will generally be ECNZ (if using Resene/Dulux/Wattyl/Paint Plus)
- Areas to be aware of that may require consideration:
 - Wet areas - solvent based Pigmented sealers
 - Timber floors, Joinery, trim - solvent based Polyurethanes
 - Interior steelwork - 2 pack Protective coatings
 - Garage Floors - 2 pack Epoxies
- Responsible Contracting:
 - Resene Eco Decorator = 0.5 point
- Specifications & points will be the same across all Homestar ratings (6-10)



homestar™
Know your home

masterspec



Resene

the paint the professionals use

Greenstar specifications will be very similar to standard specification with the exception of 1 or 2 products. Any spec platform can be used

Greenstar (minimum 95% ECNZ)

- Specifications for Greenstar projects are very similar to a standard project
- All waterborne coatings specified will generally be ECNZ (if using Resene/Dulux/Wattyl/Paint Plus)
- Products to be aware of for volume calculations:
 - Wet areas - solvent based Pigmented sealers
 - Timber floors, Joinery, trim - solvent based Polyurethanes
 - Interior steelwork - 2 pack Protective coatings
 - Concrete Floors - 2 pack Epoxies (TVOC limits can be utilised)
 - Intumescent Coatings - Low VOC options available
- Exceeding Greenstar benchmarks:
 - Significant plasterboard areas allow for Ultra Low VOC products to be utilised and the additional 1 point scored
- Do involve your preferred Paint Representative

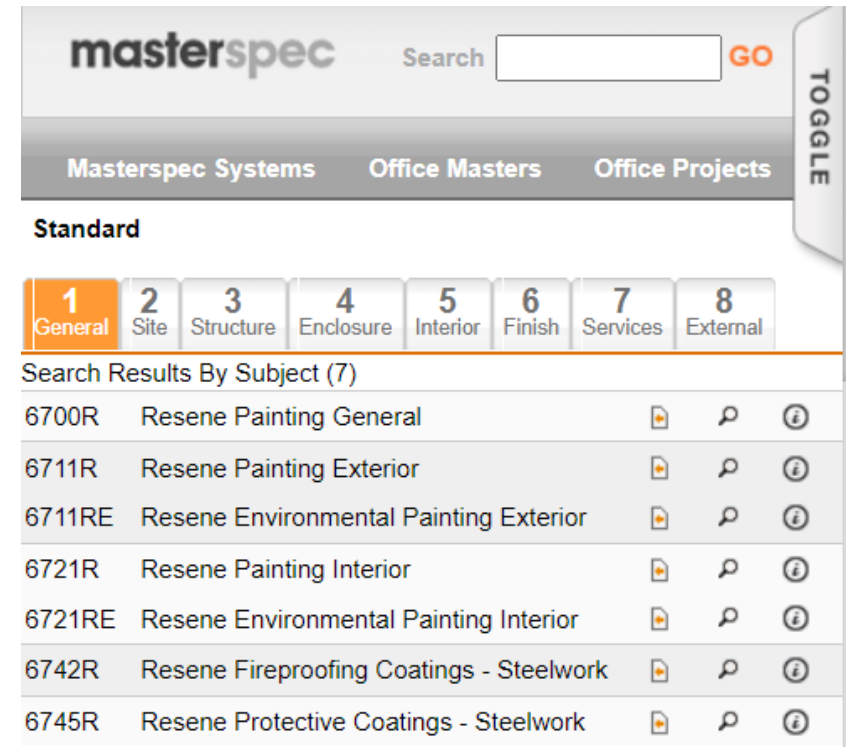


masterspec



Any Spec platform can be used however Masterspec provides the most spec's into the market.

- The largest number of specifications into the market is via Masterspec
- Masterspec provides options for specifying environmental sections - these sections are generic environmental sections typically with waterborne ECNZ options
- For Interiors you can utilise either Masterspec 6721R (standard) or 6721RE (environmental)
- Resene updating Environmental Interior 6721RE to show Ultra Low VOC options to make it easy
- Always best to contact your preferred Paint Representative if you are wanting to tailor a specification to meet environmental requirements and ensure your selections are the best options. We can also provide you with all the resources needed.



The screenshot shows the Masterspec website interface. At the top, there is a search bar with the text 'Search' and a 'GO' button. Below the search bar, there are navigation tabs for 'Masterspec Systems', 'Office Masters', and 'Office Projects'. A 'TOGGLE' button is visible on the right side. The main content area is titled 'Standard' and features a navigation bar with eight tabs: '1 General', '2 Site', '3 Structure', '4 Enclosure', '5 Interior', '6 Finish', '7 Services', and '8 External'. Below this, there is a section titled 'Search Results By Subject (7)' which lists seven specifications with their IDs and descriptions, along with icons for document, search, and information.

Search Results By Subject (7)				
6700R	Resene Painting General	📄	🔍	ℹ️
6711R	Resene Painting Exterior	📄	🔍	ℹ️
6711RE	Resene Environmental Painting Exterior	📄	🔍	ℹ️
6721R	Resene Painting Interior	📄	🔍	ℹ️
6721RE	Resene Environmental Painting Interior	📄	🔍	ℹ️
6742R	Resene Fireproofing Coatings - Steelwork	📄	🔍	ℹ️
6745R	Resene Protective Coatings - Steelwork	📄	🔍	ℹ️



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