

ORGANICS RECYCLING IT WORKS!

the
GREEN BIN **PLUS**
curbside organics recycling bin



The
Green  **Bin**

an **ORBIS** company

NORSEMAN
PLASTICS
ENVIRONMENTAL PRODUCTS DIVISION

The Green Bin Program works...

HIGH PARTICIPATION AND DIVERSION

Overcoming potential obstacles and challenges that can prevent long-term participation at the household level is of vital importance for the sustainability of organic collection programs. The Green Bin, Green Bin+ and Kitchen Collector have been exhaustively researched and designed to meet and rise above these challenges.

The Green Bin Program continues to realize outstanding participation and capture rate levels: an average of 80% of households using the Green Bin Program are diverting an average of 8 lbs per week.

Right sized, intelligently designed bins are important components in producing a high quality compost, resulting in substantial and successful programs.

THE PROOF

With millions of bins in use since 2002, Green Bin programs have yielded soaring resident participation, satisfaction, negligible breakage, and glowing testaments from municipalities.

The Green Bin, Green Bin+, and Kitchen Collector have been central to the success of many exemplary programs that prove *organics recycling works*.

FOR RESIDENTS



FOR COLLECTORS



FOR MUNICIPALITIES



FOR THE ENVIRONMENT





The Green Bin

The Green Bin was designed to balance and maximize each performance feature. It offers perfect balance between functionality, durability, and ease-of-use. It's a container residents can open, close and transport easily on a daily basis. The Green Bin is easily opened and emptied by collectors in any weather condition (even with heavy gloves), and it's resistant to pests. With millions already in use, it has proven to be simple, durable, secure, and ergonomically friendly for residents, collectors, and municipalities alike.

the GREEN BIN PLUS

curbside organics recycling bin

The Green Bin+ inherits all the best features of its immensely successful sibling, The Green Bin. The Green Bin+ is designed perfectly to meet emerging market demand for larger, domestic and commercial applications. This mid-sized wet organics recycling bin meets and exceeds the requirements for semi and fully automatic collection while remaining user friendly. Designed with aesthetics in mind, The Green Bin+ stands as the preferred choice for curbside organics collection programs with semi or fully automated lifters.



NORSEMAN
an **ORBIS** company

"To date, we are unaware of any issues related to breakage due to freezing or material contents freezing in the curbside bins especially in light of the exceptionally cold winter in 2003."

City of Toronto

Solid Waste Management Services

"We are also pleased with the quality and durability of the Green Bins."

City of Toronto

Solid Waste Management Services

"Not only does the Green Bin design and size seem to be just right for the collection process, feedback from residents is also very positive indicating ease of use and no complaints about racoons."

Regional Councillor

Town of Markham

"The bins have stood up well, with very little breakage."

Simcoe County

Environmental Services

Testimonials

"The size of the Green Bin appears to have balanced the capacity required by most residents and ergonomic considerations for both collection staff and residents."

City of Toronto

Solid Waste Management Services,

Re: Green Bin Program - Organics Collection Containers

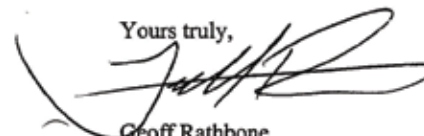
As you know, the Green Bin organics collection program started with 65,000 households in Etobicoke in the fall of 2002 and was followed in the summer of 2003 with another 115,000 households in Scarborough. Last month, we saw the successful on-time completion of distribution to an additional 220,000 households in Toronto, York, and East York bringing the total to over 400,000.

We are very pleased with the success of the program and the performance of the Green Bin itself. Over 90% of the households in the Green Bin program are participating and are diverting an average of 4 kg of organic waste per household per week. A telephone survey of 700 residents revealed an overall 80% satisfaction rating with the Green Bin.

The size of the Green Bin appears to have balanced the capacity required by most residents and ergonomic considerations for both collection staff and residents. Based on an audit of 80 households in Etobicoke over a four-week period, 98.6% of Green Bins set out for collection complied with the city's maximum by-law set-out limit of 20 kg per container. A similar study of 660 households in Scarborough over a four-week period showed that just 1% of homes needed to use a bag to supplement their Green Bin capacity.

We are also pleased with the quality and durability of the Green Bins. The number of bins that have been returned due to manufacturing deficiencies is well within the normal rate of return for waste containers. We look forward to continuing our good working relationship with Norseman Plastics as the program rolls out to North York.

Yours truly,



Geoff Rathbone
Director, Policy and Planning
Solid Waste Management Services



For additional program testimonials, contact
Norseman Plastics Environmental Division
at 1-800-894-8397

NORSEMAN
PLASTICS
an **ORBIS** company

Keeping your diversion streams clean is the key to successful, efficient waste diversion. Norseman Plastics' Green Bin Program does just that. It gives householders convenient, attractive and right-sized bins, supported with dynamic promotion and educational materials. Making it easy for residents to separate and store their kitchen organics and get them to the curb is the foundation of the Green Bin Program.

A successful Green Bin Program:

Starts in the kitchen

The attractively designed Kitchen Collector is the first step in organic waste diversion with its ease of use and portability.

Kitchen to Bin

Residents regularly empty the Kitchen Collector into The Green Bin or Green Bin+ and put out the bin on their designated collection day.

At the Curb

The collector picks up the waste at the curb and can check for contamination to keep the stream clean.

At the Organics Waste Processor

The cleaner the incoming waste stream, the more cost effective the processing is and the higher the quality of compost will be. Your residents and haulers facilitate the processors' work.



HOUSEHOLDER

It's all about getting residents to participate. That means making it easy for them to separate and store their kitchen organics and then get them to the curb. They need a right-sized bin, a handy kitchen pail and a little education.

- Convenient
- Minimize "Yuck" Factor
- Attractive

COLLECTOR

If you keep waste streams – especially kitchen organics – separate and in small containers, the collector can check for contamination and help keep each stream clean. Start thinking manual two-compartment truck and bi-weekly, and you've got yourself one flexible, efficient system.

- Flexible
- Minimize Contamination
- Efficient

PROCESSOR

The cleaner the incoming stream, the cheaper the processing, the higher quality the end product – it's that simple. Your residents and hauler facilitate the processor's work.

- Clean
- Efficient
- Marketable End Product

Keep Yard Waste and Kitchen Organics Separate

Kitchen organics and yard organics have very different characteristics. Kitchen organics come in a steady weekly stream, but they can generate odor and pest issues, and all material has to be processed daily. Yard waste has exactly the opposite characteristics.

Mixing the streams means:

- Collection/processing systems have to be over-designed to handle the leaf peak
- Your processor has to tub-grind all incoming organics daily, including leaves during the fall peak

Adding a backyard composter like **The Earth Machine™** to your program is a highly effective way to keep a large amount of yard organics on the residents' property, avoiding collection altogether.



For a Clean Waste Stream, Size Matters

Kitchen organics are typically 20 to 30% of the waste stream, or 550 lbs [250 Kg] per household, per year. That's about 4 gallons [15 litres] per week.

A 12 gallon [46 litre] bin allows for possible bi-weekly service and seasonal peaks. This size is also ideal in terms of hauler ergonomics – weighs less than a full fibre box, and is tall enough for easy lifting in manual collection programs.

A 21 gallon [80 litre] bin is designed to meet increasing demands for larger domestic and commercial applications. Ideal for semi-automatic and fully automatic collection, the Green Bin+ inherits all the best features of the Green Bin while providing larger capacity, RFID compatibility, 8" wheels and a secure, dynamic, locking handle for maximum pest resistance.

Some existing organics programs have used large carts, but does this really make sense? Large cart collection is more time consuming for collectors, causes residential street parking challenges and makes it impossible to keep your waste stream clean; the larger the bin the higher the contamination.



Easy to Use

The most obvious feature of The Green Bin is the large, easy to grasp handle. In addition to being accessible from any angle the ergonomic handle provides an excellent pivot effect for lifting, carrying, and emptying.



Pivot/fulcrum effect contributes to balanced carrying.



EASY CLEANING

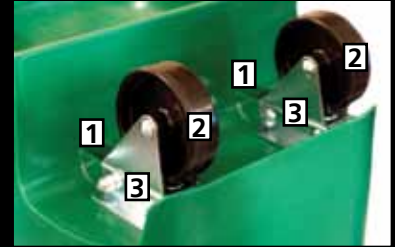
Smooth, rounded surfaces are easy to clean and resistant to household chemicals.



Flared side handles for two-handed carrying

“THE FOCUS GROUP DISCUSSIONS INDICATED AN OVERWHELMING SATISFACTION WITH THE PERFORMANCE OF THE GREEN BIN.”

Waste Management, Town of Markham



QUALITY CASTERS

- 1** PER-CASTER CROSS DOUBLE BEAM SUPPORT to withstand repeated impact/shock
- 2** CO POLYMER POLYPROPYLENE CASTERS designed to withstand impact and cold temperatures
- 3** ANGLED STEEL CASTER BED designed to cushion impacts



Security

the **GREEN BIN** PLUS
curbside organics recycling bin

The 12 lb (5.5 kg) latch release force combined with the 360° double rim lid provides optimum security against spillage, flies and odors.

The unique, patented locking latch provides maximum pest resistance and can be easily opened while wearing work gloves. In fully automated programs, the latch stands to act as a flag showing the bin is unlocked when at the curb.

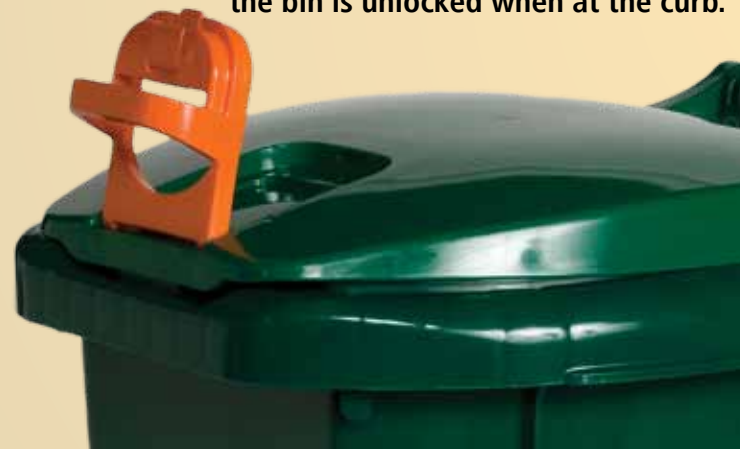
STRONG, SECURE, EASILY OPERATED LATCHES

are designed to provide a balance between having containers residents can open and close on a daily basis, are easily opened by collectors in cold weather conditions with heavy gloves, yet are resistant to pests.



“THE RESIDENTS IN THE FOCUS GROUP DISCUSSIONS INDICATED NO PROBLEMS WITH RACCOONS BREAKING INTO [THEIR] GREEN BINS.”

*Waste Management,
Markham*



THE 360° DOUBLE RIM CLOSURE

is field proven as an effective deterrent against flies, maggots, and other pests. Keeping odors in resists pest attraction.



LARGE STABLE FOOTPRINT

whether wheeled or unwheeled, prevents tipping from wind or animals





Manual Collection

“OUR COLLECTION CONTRACTOR HAS INDICATED AN OVERALL SATISFACTION WITH THE GREEN BIN AND HAS RAISED NO ERGONOMIC DESIGN ISSUES.”

*Claudia Marsales,
Waste Management,
Markham*

FUNCTIONAL LID LOCK



OMNIDIRECTIONAL HANDLE



DEEP BOTTOM GRIP



270° LOCK-BACK



Semi and Fully Automated Collection



The Green Bin + is designed to be lifted by either fully or semi-automated industry standard lifters.

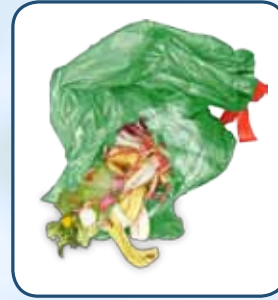
For fully automated collection, the latch is unlocked by the resident when placed at the curb and lifted to act as a flag, indicating to the collector that the bin is ready to be emptied.



What about bags?

Putting your organics in plastic bags may sound like a nice, easy solution, but consider:

- Do your residents really want a soggy bag outside their back door?
- Will they be favorable to untying the bag to add material every day or two?
- What about animals getting into it?
- Will all this plastic contamination mean you end up with landfill cover instead of compost?
- Will your residents be happy about having to buy their own bags?
- How many extra bags a year will end up in the landfill?



Liners

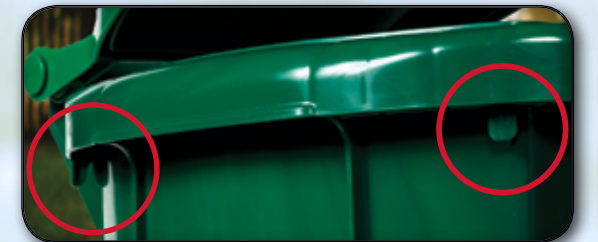
Not all bags are created equal!

Virtually all compostable bag manufacturers have designed their products specifically to fit The Green Bin, Green Bin+, and The Kitchen Collector. Use of compostable liners increases resident program participation by reducing the “yuck factor” and also helps ensure programs yield the highest possible quality compost.

What to look for in a liner:

Paper or compostable liner bags are 100% compostable and are made from all natural products.

They should have the one or more of the following symbols on the package:



integrated clips on the Green Bin+ for compostable liners

Commercial Application



Whether in a small cafe, large restaurant, shopping centre food court or grocery store department, the Green Bin offers an ideal solution to source separating all organic food waste in any commercial environment.

Manufactured to the highest standards and specifically designed for organic food waste collection and diversion, the Green Bin's large capacity combined with a small footprint allows the Green Bin to be utilized in areas where space is limited, without obstructing workflow.

Transcending residential collection, use of the Green Bin in commercial environments is an important additional step to maximizing diversion of kitchen and food waste from the waste stream.



Promotion & Education Materials

With millions currently in use, Green Bin programs are supported with a dynamic and targeted promotional and educational support system.

It is essential to make residents aware of their municipality's implementation of the Green Bin Program and to educate them on the importance of diverting kitchen organics from the waste stream.

Norseman Plastics Environmental Products Division can facilitate education efforts by offering to the municipality customized informative tools such as Green Bin program video/DVDs, magnets, "what goes in, what stays out" lid stickers and info sheets. These tools are in addition to the municipality's promotion initiatives that start months in advance of the curbside organics collection program, such as workshops, newspaper ads, TV and radio ads, and collection calendars. We can offer customized educational tools to be kitted and included with the door-to-door bin distribution.

Ensuring residents are well informed and educated will result in enthusiastic acceptance of The Green Bin program and will make organics recycling routine and easy. Residents empowered with the knowledge that they are an essential part of their municipality's waste diversion efforts are proven to be invaluable to the success of any waste diversion strategy.



Fridge magnets



stickers & literature



DVDs



Reducing Carbon Emissions

Food waste that goes to landfills is one of the highest contributors to greenhouse gasses. Methane is over 23 times more potent than CO₂ therefore removing food waste from landfills and creating good compost from it can greatly reduce the carbon footprint of your community.

Diverting food waste from landfills with the Norseman Plastics Green Bin program will help reduce greenhouse gasses and will produce compost to help maintain soil, lawns and plants in your community.

Calculations based on the Chicago Protocol. Greenhouse Gas Calculator produced in cooperation with Biocycle and Dr. Sally Brown.

POPULATION	DRY FOOD WASTE	TONS OF CO ₂
1	75 LBS	225 LBS
10,000	375 TONS	1125.0 TONS
20,000	750 TONS	2250.0 TONS
50,000	1875 TONS	5625.0 TONS
75,000	2812.5 TONS	8437.5 TONS
100,000	3750 TONS	11250.0 TONS
125,000	4687.5 TONS	14062.5 TONS
150,000	5625 TONS	16875.0 TONS
200,000	7500 TONS	22500.0 TONS
250,000	9375 TONS	28125.0 TONS
350,000	13125 TONS	39375.0 TONS
500,000	18750 TONS	56250.0 TONS
750,000	28125 TONS	84375.0 TONS
1,000,000	37500 TONS	112500.0 TONS

The Kitchen Collector



SECURE

- Sized to promote emptying 2 - 3 times per week
- Snap latch tightly secures lid
- 360° double rim closure
- Over two million in use

ATTRACTIVE

- Aesthetic design that blends with a contemporary kitchen environment promotes participation

USER FRIENDLY

- Strong, ergonomically designed handle for easy carrying and emptying
- Oval shape facilitates easy plate scraping
- Fits comfortably under water faucets
- Dishwasher safe
- 2 gallon [7.8 litre] capacity

CLEANING



Rounded corners allow easy, thorough cleaning



Fits comfortably under faucets



Tested to withstand 20 continuous dishwasher cycles



LAB-TESTED RELIABILITY



Bodycote Materials Testing - Test#02-03-M0697

- Green Bin: Latch Fatigue Test

Bodycote Materials Testing – Test #01-03-M0645

- Green Bin: Lid Lock-Back Fatigue Test

Norseman Plastics

- Green Bin: Flies & Maggots – Sealing Condition of 360 deg. rim closure

Bodycote Materials Testing

- Green Bin: Cold Drop Test

Bodycote Materials Testing

- Kitchen Collector: Cold Drop Test

Northstar Research Partners

- City of Toronto: Green Bin Outdoor Container – Satisfaction Survey

Markham Focus Group

- Mission Green: Green Bin, Kitchen Collector, and program

Norseman Plastics

- Kitchen Collector: Dishwasher Resistance Test

Norseman Plastics

- Quality Control Procedures: Green Bin and Kitchen Collector



Bodycote Materials Testing – Test #08-03-C0270

Green Bin+ Capacity Test –80.2L/21 US Gallons

Bodycote Materials Testing – Test #08-03-C0270

Lid Rotation Test – 275 Degrees

Bodycote Materials Testing – Test #08-03-C0270

Quality Control Test – Bin has enclosed Cavity, no holes for leakage or protrusions

Bodycote Materials Testing – Test #08-03-C0270

Durability, Balance, Load and Wind Test, based on ANSI Z245.30-1999

Bodycote Materials Testing – Test #08-03-C0270

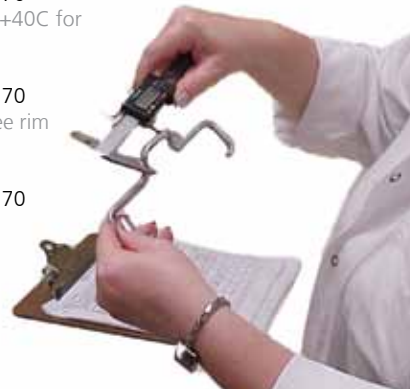
Temperature Test – GB+ tested from –40C to +40C for Durability, based on ANSI Z245.30-1999

Bodycote Materials Testing – Test #08-03-C0270

Lid Seal Test – Sealing Condition of 360 Degree rim closure

Bodycote Materials Testing – Test #08-03-C0270

One Hand Lid Opening Operation



ACTIVE INTERNATIONAL PROGRAMS

FROM TOWNS WITH ONLY 200 HOMES TO CITIES WITH OVER 500,000 HOMES

City of Toronto, Ontario

- 520,000 Green Bins
- 520,000 Kitchen Collectors

Region of Peel, Ontario

- 300,000 Green Bins
- 300,000 Kitchen Collectors

Durham Region, Ontario

- 130,000 Green Bins
- 130,000 Kitchen Collectors

Town of Markham, Ontario

- 70,000 Green Bins
- 120,000 Kitchen Collectors

Niagara Region, Ontario

- 80,000 Green Bins
- 130,000 Kitchen Collectors

City of Barrie, Ontario

- 40,000 Green Bins

Simcoe County, Ontario

- 4,000 Green Bins

City of Hamilton, Ontario

- 1,500 Green Bins
- 2,000 Kitchen Collectors

Dufferin County, Ontario

- 14,000 Green Bins
- 14,000 Kitchen Collectors

Peterborough County, Ontario

- 650 Green Bins
- 650 Kitchen Collectors

Waterloo Region, Ontario

- 6,000 Green Bins
- 6,000 Kitchen Collectors

City of Vaughan, Ontario

- 73,000 Green Bins
- 73,000 Kitchen Collectors

Kawartha Lakes, Ontario

- 250 Green Bins
- 250 Kitchen Collectors

City of Sudbury, Ontario

- 1,200 Green Bins
- 1,200 Kitchen Collectors

Township of Mono Dufferin Cty

- 1,200 Green Bins
- 1,200 Kitchen Collectors

Town of Richmond Hill, Ontario

- 45,000 Green Bins
- 45,000 Kitchen Collectors

Northumberland County, Ontario

- 450 Green Bins
- 450 Kitchen Collectors

York Region Northern Municipalities, Ontario

- 75,000 Green Bins
- 75,000 Kitchen Collectors

Halton Region, Ontario

- 140,000 Green Bins
- 140,000 Kitchen Collectors

Victoria CRD, British Columbia

- 2,000 Green Bins
- 2,000 Kitchen Collectors

Nanaimo RDN, British Columbia

- 3000 Green Bins
- 3000 Kitchen Collectors

Ladysmith, British Columbia

- 2,600 Green Bins

County of Antigonish, Nova Scotia

- 6,300 Green Bins

Christchurch, New Zealand

- 260 Green Bins

North Shore, New Zealand

- 42 Green Bins
- 416 Kitchen Collectors

Wales, United Kingdom

- 4,000 Green Bins

City of Freemont, California

- 50,000 Kitchen Collectors

City of Kirkland, Washington

- 12,000 Kitchen Collectors

City of Redmond, Washington

- 12,000 Kitchen Collectors

King County, Washington

- 925 Kitchen Collectors

Thurston County, Washington

- 480 Kitchen Collectors

Santa Clara County, California

- 480 Kitchen Collectors

City of Livermore, California

- 24,000 Kitchen Collectors

**MORE BEING
ADDED MONTHLY**

SPECIFICATIONS



Volume	Wheeled	12.15 gallons (46.5 litres)
	Un-wheeled	13 gallons (49.0 litres)
Weight, net	Wheeled	8.2 lbs (3.7 Kg)
	Un-wheeled	8.2 lbs (3.7 Kg)
Lid	Hinged	Yes
	Attached	Yes
	Odor seal	Double rim 360 degree closure
	Securable	Yes – steel front latch
	270 degree lock-back	Yes
Inside Appearance	Smooth, with rounded corners	No ventilation
Handle, central	Width, inside	4.9" (12.5 cm)
	Glove clearance	2.8" (7 cm)
	Height from ground	26.8" (68 cm)
Handles, side (two)	Width	7.1" (18 cm)
	Depth	1.2" (3 cm)
Bottom Grip	Depth	1.4" (3.5 cm)
Stability	Height to rim	9.3" (23.5 cm)
	Footprint	11.8" x 10.6" (30 cm x 27 cm)

Material	High Density Polyethylene	High pressure injection molded
	Recycled Content	10 to 25 %
	UV Protection	Yes
	Color – standard	Green, Pantone PMS349C
	Durability	To minus 20 degrees Celsius (-4° F)
	Disinfectant/Detergent resistant	Yes

Wheels	High impact co-polymer polypropylene, 7.6 cm diameter, in special steel mounting for shock dispersion
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Rodent Resistance	Steel front latch	Minimum 11 lbs (5 kg) release force
	Optional latch lock	Retrofit kit

Logo Placement	Front, hot stamped	5.9"W x 7.9"H (15 cm W x 20 cm H)
	Side or back	Optional extra – TBA

Nesting Ratio	4.4:1
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Shipping Configuration	Units per pallet, shrink-wrapped	Up to 72
	Units per 53' trailer	Up to 1440
	Bulk loaded 53" trailer	2160

Warranty	5 years
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Manufacturing info	Date and Location: Bin & Lid	Date clock on underside
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SPECIFICATIONS



Volume	Wheeled	21 gallons (80 litres)
Weight, net	Wheeled	15.4 lbs (7 Kg)
Lid	Hinged	Yes
	Attached	Yes
	Odor seal	Double rim 360 degree closure
	Securable	Yes – patented latch lock
	270° lock-back	Yes
Inside Appearance	Smooth, with rounded corners	No ventilation
Handle, central	Width, inside	7.5" (19 cm)
	Glove clearance	2.0" (5 cm)
	Height from ground	32.5" (82.5 cm)
Handles, side (two)	Width	8" (20.3 cm)
	Depth	1.75" (4.45 cm)
Stability	Height to rim	31.0" (78.7 cm)
	Footprint	12.5" x 11" (31.8 cm x 27.9 cm)

Material	High Density Polyethylene	High pressure injection molded
	Recycled Content	10 to 25 %
	UV Protection	Yes
	Color – standard	Green, Pantone PMS349C
	Durability	To minus 20 degrees Celsius (-4° F)
	Disinfectant/Detergent resistant	Yes

Wheels	Standard 8" wheel with 5/8" solid axle
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Rodent Resistance	Standard patented latch lock Over 30 lbs pull force without button use
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Logo Placement	Front, hot stamped	5.9"W x 7.9"H (15 cm W x 20 cm H)
	Side or back	Optional extra – TBA

Shipping Configuration	Units per pallet, shrink-wrapped	Up to 48
	Bulk loaded 53' trailer	1476

Warranty	5 years standard
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Manufacturing info	Date and Location: Bin & Lid	Date clock on underside
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SPECIFICATIONS

THE
KITCHEN
COLLECTOR



Volume	2 gallons (7.2 litres)	
Weight, net	1.1 lbs (0.5 Kg)	
Lid	Hinged	Yes
	Attached	Yes
	Odor seal	Double rim 360 degree closure
Dimensions	Width	11.9" (30 cm)
	Height	8.7" (22 cm)
	Depth	8.7" (22 cm) Yes
	Easy fit under sink	
Inside Appearance	Smooth, with rounded corners	No ventilation
Handle	Single swing handle; One-handed operation	
Stability	Will not tip when opened	
Bag Accommodation	Compostable bag/liner	Yes
Material	High Density Polyethylene	High pressure injection molded
	Recycled content	Yes
	UV Protection	Yes
	Color (standard)	Beige body, white lid & handle
	Durability	To minus 20 degrees Celsius
Dishwasher Safe	Yes	
Logo Placement	Front, hot stamped	3.9" x 3.9" (10 cm x 10 cm)
	Upper lid surface	Optional
Nesting Ratio	6.5:1	
Shipping Configuration	24 per box	Up to 480 per skid Up to 9600 per 53 ft trailer
Warranty	5 years	
Manufacturing Info	Date and location	Date clock on underside

the
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THE
KITCHEN
COLLECTOR



The
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For more information, contact 1-800-894-8397, enviro@norsemanplastics.com or visit www.norsemanenviro.com



IMPROVING YOUR WORLD



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