

ENERSENSE True-Triple Glazed

OSTACO.COM | THOSE WHO KNOW...TRUST OSTACO



enersense

ADVANCED WINDOW TECHNOLOGY



Message from the President

The hero of the Dickens novel 'David Copperfield' says: 'Whatever I have devoted myself to, I have devoted myself to completely.'

Here at Ostaco, you'll see that kind of devotion every day. Our core belief in quality windows and doors sends us striving for efficiency, durability, added-value features...and beauty.

We work tirelessly to improve and refine our windows and doors. After three decades in the business, we are still pouring time and money into research and development. This means plenty of dialogue with the people whose experience really counts: our dealers. When these important team-members asked us to find ways to make a high-performing modern window look and feel more like a traditional wood window, we acted by maximizing glazed area, removing weld seams and much more!

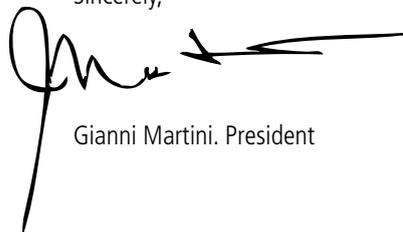
The latest exciting result? Our new triple glazed Enersense window. Designed from scratch by our engineers, Enersense was perfected via two years of painstaking research and collaboration.

Enersense is a true triple-pane window (meaning every pane contains insulating Argon gas). Everything from the 1 3/8" thick triple glass to the new custom-designed heavy-duty hinge, is crafted in order to provide optimum energy efficiency and years of trouble free performance! And 'Low E' Argon filters out the UV light that can fade your furniture and curtains, while its soundproofing qualities are way up there at the top end of what's currently possible.

Our commitment to quality allows us to back each of our products with a limited lifetime warranty. So as you read this brochure you can enjoy not just spectacular images but also peace of mind.

At Ostaco, we welcome your comments and questions. So please feel free to be in touch.

Sincerely,



Gianni Martini, President



ENERGY STAR

Most Efficient

2014

Who doesn't want the best?

Why have OK energy efficiency, when you can have the best? With 2 or 3 panes of glass, plus our carefully-honed combo of design and materials, your home will be better protected from cold and heat. So your energy dollars will go further. Some things really are that simple!

Your choice: Cellular PVC or real wood

GORGEOSITY #1 (IS THAT EVEN A WORD? IT SHOULD BE)

What's not to love about wood windows? Wood is warm, wood is natural -- and wood is timeless. Finally strength and durability meet elegance in the window industry. Unfortunately, traditional wood windows can rot, mold, and warp after being in high moisture areas. With Enersense from Ostaco, you get the beauty of a wood finish with the strength and stability of vinyl.

Our lavish use of real wood inside gives the look of fine crafted wood windows without the maintenance. We offer 3 gorgeous wood species: Cherry, Oak and Pine. Custom wood options are available.



Oak

Cherry

Pine

GORGEOSITY #2

Love colour? Paint Enersense any colour of the rainbow; Inside and out. Butter Pecan in the kitchen, Cloud White in the bathroom, Paradise Pink in the bedroom -- you get it. Enersense interior cellular PVC comes standard in Benjamin Moore Cloud White.

SOUND RESISTANCE

Busy street? Noisy neighbours? Need to sleep during the day? Enersense is your solution. We at Ostaco want your home to be a sanctuary of peace and quiet: this was one of the many inspirations behind Enersense. Sound Transmission Class (STC), rates a window's ability to resist airborne sound transfer. Enersense boasts an STC rating of 36-39...one of the best ratings available on the market.



No pane, no gain: Triple pane glass is the way to go

At a 1 3/8" thickness, our "true-triple" pane glass packages achieve more than 30% better U-value over the competition's "skinny triple" glass. And yes, 1 3/8" is the optimal thickness for energy performance, which means it keeps your house cool in the summer and warm in the winter. (This is Canada after all, eh.) Enersense is also available with dual pane glazing options.

You've heard of argon gas -- we guarantee a 90% fill rate! This miracle gas goes between each pane of glass and works with our LoE coating to filter harmful UV light while reducing heat loss and sound transmission. Plus, our LoE glass doesn't have a haze like some of our competition because our LoE is molecularly bonded onto the glass -- not baked.



LoE-180, HIGHEST VISIBILITY

With 80% visibility, it blocks 76% of the sun's damaging UV rays.



LoE²-272, BALANCED PERFORMANCE

With 72% visibility, it blocks 84% of the sun's damaging UV rays. In winter, it reflects heat back into the room. In summer, it rejects the sun's heat.



LoE³-366, ULTIMATE PERFORMANCE

The best U-value, LoE³-366 has 66% visibility and it blocks 95% of the sun's damaging UV rays.



LoE-i89, NEWEST TECHNOLOGY

Introducing our new energy-saving 4th surface (roomside) coating. Coupled with our other LoE coatings, LoE-i89 achieves the best ER- and U-values possible.

R-Value 9.43*

POPULAR PACKAGES	PANE 1	PANE 2	PANE 3	VISIBILITY	UV EXPOSURE (LOWER IS BETTER)	ER-VALUE (HIGHER IS BETTER)	U-VALUE (LOWER IS BETTER)
TRUE-TRIPLE PANE	LoE ³ -366	LoE ³ -366	LoE-i89	45%	4%	38.6	0.106
	LoE ² -272	LoE-180	LoE-i89	62%	8%	46.4	0.114
	LoE ² -272	CLEAR	LoE-180	63%	8%	45.4	0.130
DUAL PANE	LoE ³ -366	LoE-i89	NA	63%	5%	31.0	0.20
	LoE-180	LoE-i89	NA	77%	27%	49.8	0.21
	LoE ² -272	CLEAR	NA	72%	16%	32.8	0.25

The high-tech world of glass is amazing. We have chosen the best combinations to create the perfect balance of visibility, energy ratings and UV exposure.

*Based on Ostaco's standard 3mm glass and 1/2" Argon gas filled gaps. Values calculated based center of glass using Window 6.3, ASHRAE conditions. LoE is a registered trademark of Cardinal Glass.

Enersense: A closer look

FRAME

- 1 At a frame depth of $5 \frac{5}{8}$ " , Enersense is made for the discerning homeowner. Combining the beauty of a wood finish on the inside with long lasting, durable and maintenance free vinyl on the outside.
- 2 Choose from 3 gorgeous wood species: cherry, oak and pine. Optionally, we offer the same luxurious wood-look using paintable cellular PVC, with the added benefit of being maintenance free inside and out.
- 3 Foam filling increases R-value and adds structural reinforcement.

GLASS

- 4 At $1 \frac{3}{8}$ " overall thickness, Enersense pioneered 'true triple pane' glazing. Choose high-tech coatings, gas fills, spacers, grills, privacy glass, etc.
- 5 Warm edge spacer(s) recessed between glass minimize glass edge conductivity. Ventilated glass chamber helps prevent condensation.
- 6 Tape glazed glass provides a more secure and better seal.

WEATHER PROTECTION

- 7 Premium crafted wood-look of mechanical joints on the inside. Fusion welded corners on the exterior creates a weather proof seal.
- 8 Self-adjusting weatherstripping.
- 9 Santoprene™ bulb seal and seal groove.

EXTENSIONS

- 10 Exterior channel to add brickmould.

CONSTRUCTION

Our multi-chambered design greatly improves thermal performance, strength and offers superior sound insulation.

- 11 0.090" thick exterior sash walls for superior strength, durability and thermal performance (frame measures 0.075").
- 12 Nail fin groove easily adapts to new construction with $1 \frac{3}{16}$ " set back. Provision to add windbreak to cut down on air infiltration.
- 13 Steel reinforcement channel; Available for additional hinge support.
- 14 Mullion reinforcement pocket to address structural combinations.



Reality check: Let's compare



ENERGY EFFICIENCY

We'd love you to believe our claims of top-notch energy efficiency but just in case you need convincing...This finely crafted window has been rated "Most Efficient" by Energy Star in 2014, surpassing the energy and structural performance of most traditional vinyl and wood windows.

GLASS

Other companies are selling their 'skinny-triple' glazed window with 7/8" or 1" overall glass thickness. Sorry guys - but those are not 'true-triple' pane units. Enersense 'true'-triple glazed windows are 1 3/8". This golden dimension allows the argon gas to work its hardest, and bring optimum energy efficiency to your home.

HARDWARE

Sure - three panes weigh more than two! That's why we laboured over the hardware, designing the correct shape and function to bear the extra weight of all that weather-protecting thermal glass. Ostaco's hinges are thicker, stronger, and more durable than the competition. Enersense's hinge can hold up to 185 lbs and still glide with ease and grace.

VINYL

Ontario's temperatures fluctuate far more than most climates worldwide! Add our wind, rain, sun and snow to wildly differing seasonal mercury, and it's plain: we need hearty windows. Enersense by Ostaco uses only the best materials and design elements for where we live! A strong multi-chambered frame and sash will keep up with expansion and contraction over the seasons. And our vinyl wall thickness is 90% thicker than traditional vinyl windows.

FOAM FILLED

Go Green for comfort, energy efficiency and savings. Foam filled windows are more energy efficient and bring added comfort regardless of the temperature. Enersense comes with polyurethane foam-filled chambers: a simple innovation that improves overall thermal efficiency up to 8%. (You see, foam helps to retain internal temperatures, preventing condensation.)

THEIRS



Their 'Skinny-Triple' Glass

OURS



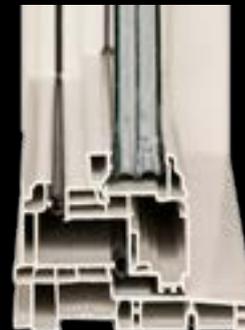
Our 'True-Triple' Glass



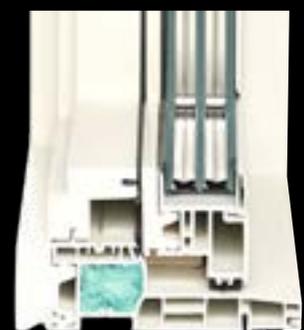
Their Hardware



Our 'Heavy-Duty' Hardware



Their non-filled foam frame



Our foam filled chamber



Ostaco

WINDOWS & DOORS

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www.Ostaco.com



20 YEAR
Limited Paint
WARRANTY!



CCMC



Ostaco Windows are C.S.A./Keystone/NFRC certified. Ostaco Windows meets the requirements of the following organizations: ENERGY STAR, CCMC, CWDMA, NFRC. The results shown are from national tests under the following standards: NAFS (AAMA/WDMA CSA 101 I.S.2/A440-11)

Warranty and test results available upon request. Ostaco Windows Inc. manufactures vinyl window and patio door systems made from LEAD-FREE uPVC (Polyvinyl Chloride).

Windows and doors manufactured by Ostaco are installed and distributed by authorized independent dealers. Subject to certain terms and conditions, Ostaco offers a lifetime warranty on all its products. Details are available upon request. Ostaco Windows is not responsible for faulty installation of products. Ostaco is not responsible for any tears or rips caused by animals or humans. Ostaco has gone to every effort to ensure that the information contained herein is accurate. However, Ostaco accepts no responsibility whatsoever for any errors in or omissions from the brochure and reserves the right to discontinue, replace or make changes to any of its products without incurring liability.

05/14