

Painting the Future Green

A story of Calibre Environmental Ltd and their product **ecocoat**

www.recyclepaint.com



Quick facts

- 70-80% of Alberta's latex paint is now collected by Calibre and 70-80% of that is recycled.
- Each can of recycled paint saves 115 pounds of CO₂ relative to a virgin can (based solely on the electricity saved in the two production methods).
- Between 400-500 kg of metal is baled every day. When there is a market for metal (and plastic), the bales are shipped to respective recyclers. Prior to CEL, these containers simply went into landfill. Even when metal has been at its peak, CEL does not recover the cost of doing the extra work it takes to save these from landfill.
- **ecocoat** is \$13/gallon (suggested retail price) compared to \$35/gallon of comparable quality paint.
- 14 colours available – if one doesn't match you can always use **ecocoat** as a base coat.
- In Alberta today there are recycling programs for oil, beverage containers, paint, tires, and electronics. In 2010, a program for construction and demolition materials is projected to be introduced.
- One third of all the waste in our landfills is from building materials and demolition.
- We as a society must begin evaluating products on their recycled content and inputs causing a movement in our buying decisions to really motivate change.

Introduction

Tucked away in Calgary's Foothills Industrial Park is the Calibre group of companies. On August 7th, Rosalynn Dodd and Brooke Matthews paid a visit to one in particular: Calibre Environmental Ltd (CEL). CEL is one of only a handful of companies world-wide that is currently recycling latex paint. Latex paint from all over the province of Alberta is transported to their Calgary warehouse where it is inspected and separated based on type and colour. Although CEL is a greener company it faces the identical challenges that all small companies

do: finding and retaining quality employees, managing cash flows, making wise investment decisions, hard work, etc. Dean Brawn is the VP of Business Development at CEL and spoke with us about business, government, goals and his “pet peeves.” This is what we discovered.

History of Calibre Environmental Ltd.

In 1986 Calibre was a small, one-man painting company. Today, it has six operating companies and 200 employees in Calgary and Edmonton. CEL was incorporated in 2003 and initially recycled paint from contractors and businesses. The following year, CEL obtained a contract with the City of Calgary to recycle the city’s paint. Alberta’s Paint Stewardship Program came into effect in April 2008 which helps finance the collection of paint across the province which is where CEL gets most of their feedstock. Today an estimated 70-80% of Alberta’s post-consumer latex paint passes through Calibre.



Figure 1 - The colour sorting and recycling area

The Paint Recycling Process

Last year alone, CEL recycled approximately 400,000 liters of paint. But, it’s not just the paint that is being saved from the landfills; CEL also recycles the cans. The cans are cleaned, collected, crushed and bundled into 400-500kg bales. CEL is currently creating an average of one new bale, every day! That’s a lot of paint and metal that’s not going into our landfills! When the paint arrives at CEL, workers evaluate every can on a number of important metrics. A can without a label is unrecyclable- if they don’t know what’s inside, they can’t recycle it



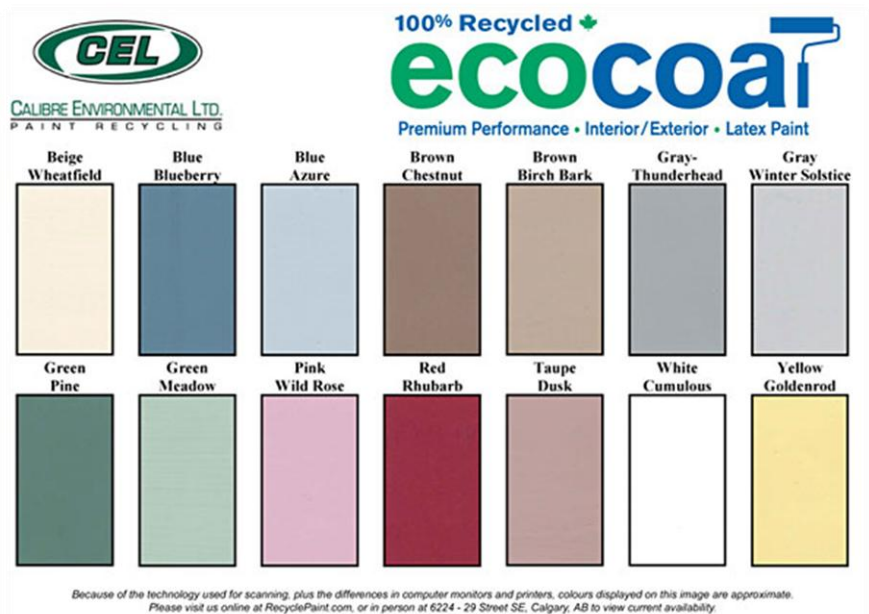
Figure 2 - Bales of Paint cans

so all oil based paint is collected and eventually shipped to a hazardous materials handler who uses the BTU value as an alternative fuel. Cans are opened to see the consistency of the paint. Often, paint has gone through a number of freeze/thaw cycles and separated; sometimes the paint has dehydrated so much that only a solid lump is left at the bottom of the can. Once the paint passes this inspection it is separated based on colour into one of 14 shades. The paint is then mixed, filtered, repackaged and sold as **ecocoat**. While they cannot guarantee colour matches between batches, Dean is finding that the colours are remarkably consistent. **ecocoat** is currently sold in British Columbia, Alberta, Saskatchewan and Manitoba.

ecocoat's High Quality

A common complaint about recycled materials is that they are of lesser quality and/or more expensive than virgin product. **ecocoat** deals with both these issues: it is less expensive than comparable quality premium brands of virgin paint, works at least as well, with fewer coats. Quality paint is defined by having a high solid-to-water concentration while inferior paint will have greater amounts of water. Once a can of paint has been opened, the water will slowly evaporate increasing the concentration of latex. This leads to recycled paint being of high quality at a reasonable price (\$13/gallon vs. \$35/gallon). **ecocoat** performs just like a high-quality

paint. Although each batch (made 10,000L at a time) is slightly different the swatches painted on the outside are actually done with the paint found in the can. If you need an exact colour, what Dean suggests is using **ecocoat** for the base coat and then the top coat with a colour-matched virgin product.



Struggles

According to Dean, one of the most important aspects of recycling is creating demand for recycled product at the downstream end. Recycling itself is great, but if consumers are not basing their purchasing decisions on

recycled content then demand is not being created. He really forces us to evaluate what we actually consider when we make a buying decision.

Another challenge facing CEL is achieving LEED specifications on their product. To be LEED certified, the paint must contain low amounts of Volatile Organic Compounds (VOCs). When tested, **ecocoat**, has easily met these specifications every time. The trouble is that each batch has a slightly different make-up, therefore every batch has to be tested, at a cost of \$200 each test. So, while the paint would probably meet these specifications, each batch cannot be guaranteed unless tested. This means that virgin paint producers that have a specified, guaranteed recipe can test the recipe once and market their product as a low VOC product.

Current and Future Plans

CEL's operations is currently dependant on the environmental fee that is levied on all new paints bought in Alberta. The "gravy," as Dean puts it, is the sales from the **ecocoat** paint. CEL would like to turn this relationship around by increasing the sales of **ecocoat**. CEL and Dean have a number of ideas for the future. One of the issues facing them right now is what to do with the colours that are in low demand (pinks and yellows). To deal with this, they are currently looking at developing a new brand of generic brand recycled paint. These paints may be even lower cost, but may not have quite the same quality. This will be an avenue to sell these other colours that people aren't willing to pay full price for. Also, there are other products that are developed with similar components to latex paint; incorporating some of the less popular colours. Dean also said that they are looking into other ways to make their process even more efficient. One idea is trying to find a way to reconstitute the dehydrated lumps of paint found in some cans. CEL has also started recycling unused paints from British Columbia and are looking at the potential of other provinces. To assist with all these plans CEL has recently hired a chemist who has over 30 years experience in the paint industry.

Additional Positive Changes

What keeps Dean motivated? "It's a good challenge with the right timing generating a good opportunity". It's also important to the next generation, namely his kids, who are proud of the work that he does. Dean also mentioned that his increase in awareness has spilled over into other areas of his life. His family is currently

renovating their home and they are installing solar panels, using other recycled construction materials and dealing with the construction waste in a manner that they probably wouldn't have otherwise. How else can we save the planet? Dean is sensitive to the amount of material ending up in our landfills and is adamant that we need to change our habits. One third of all material in our landfills is from building materials or demolition. In Alberta, oil, beverage containers, paint, tires, and electronics all have recycling programs, so there is no excuse to throw these products out. Within the next year, the government of Alberta is expected to implement a similar stewardship program for construction and demolition waste.

Conclusion

Calibre and its owners have done what all good entrepreneurs do. They identified a possible market and entered it, they worked hard and have made sensible business decisions. Dean and his partners saw the possibilities of creating a sustainable company (commercially, socially, and environmentally) what might be the next one? More importantly, who will possess the tenacity and ingenuity to bring it from concept to reality?