



Volatile Organic Compound Concentration Limits for Architectural Coatings Regulations

What Are Architectural Coatings?

Architectural coatings are products such as **paints, stains, varnishes, lacquers** and other types of coatings applied to traffic surfaces or to a wide variety of stationary structures in residential, commercial, institutional and industrial settings.

The Canadian architectural coatings sector produces coatings for three main segments:

- **General architectural coatings:** coatings sold to painting contractors and to the general public through retail outlets.
- **Industrial maintenance coatings:** high-performance architectural coatings for industrial or professional application to surfaces exposed to extreme conditions.
- **Traffic marking (TM) coatings:** used for marking traffic surfaces such as streets and highways, parking lots, airport runways, etc.

Where Do Emissions of Volatile Organic Compounds Originate?

Volatile organic compound (VOC) emissions from the architectural coating sector result from the use of solvents in both solvent-based and water-based coatings. The solvents in coatings are released to the atmosphere by evaporation during the drying and curing process. They then contribute to the formation of ground-level ozone and particulate matter, which form smog.

Why Are Regulations Necessary?

The Government of Canada is working to protect the environment and health of Canadians from the effects of air pollution which increase the risk of respiratory and heart diseases.

In 2005, it was estimated that 51 kilotonnes of VOCs were emitted from architectural coatings in Canada. It is not feasible to capture and control VOC emissions resulting at the point of use. The best option to reduce VOC emissions from architectural coatings is to **reformulate products to contain lower levels of VOCs**. The Regulations would result in an annual reduction in VOC emissions from these sources of approximately 28%.

To Whom Do the Regulations Apply?

The Regulations apply to the **manufacturers, importers and sellers** of architectural coatings, as well as to the **users of TM coatings**.

What Are the Main Requirements of the Regulations?

The Regulations set mandatory VOC concentration limits for **53 categories** of architectural coatings. Concentration limits vary between **100 g/L–800 g/L** depending on the category and are set out in the Schedule to the Regulations, which can be viewed at <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2009-264/>.

The prohibition of architectural coatings that exceed the applicable limits are outlined below:

Number of Categories	Prohibition Date for		
	Manufacture / Import	Sale and Offer for Sale	Use
45	Sept. 9, 2010	Sept. 10, 2012	N/A
6	Sept. 9, 2012	Sept. 10, 2014	N/A
1 ("recycled coating")	Sept. 9, 2014	Sept. 10, 2016	N/A
1 ("TM coating")	Sept. 9, 2010	Sept. 10, 2012	Sept. 10, 2012*

*The category for "TM coating" is the only category subject to an annual use prohibition during the period **beginning May 1 and ending October 15**, when the VOC concentration exceeds **150 g/L**. For the remainder of the year, the use of TM coatings will not be restricted and applicators will be able to use products which are compliant with the Regulations for manufacture, import, sale and offer for sale.

These specific requirements were developed in response to concerns expressed by TM stakeholders regarding the performance and cost of low-VOC traffic marking coatings for cold weather application.



HOW TO STAY INFORMED?

For additional information visit www.ec.gc.ca/cov-voc

Questions and inquiries can be directed to Environment and Climate Change Canada:

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