



Powder Coatings **North American Frontiers**

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Contents



Why Powder Coatings?



Where are we today?



Our place in the industry



What's next?



Questions

What are powder coatings?



Free flowing mixture of resins, pigments, additives



Applied to the surface using an electro-static paint gun with air



Powder coated on to the substrate by melting the paint inside an oven

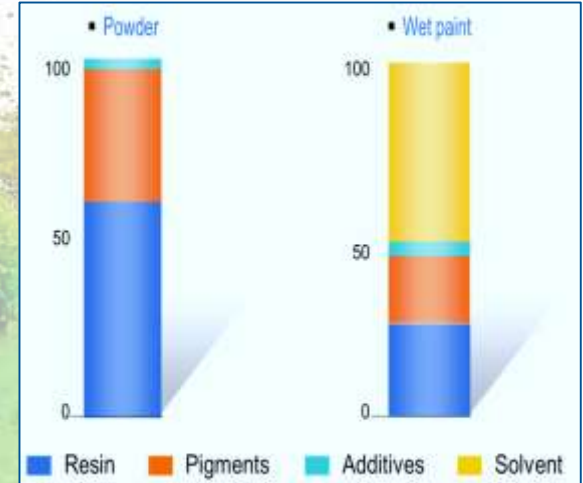
Why are powder coatings on the rise?



Durable



Economical



Sustainable

Powder coatings: Where we are today?



Legacy and growth of powder coatings

1953

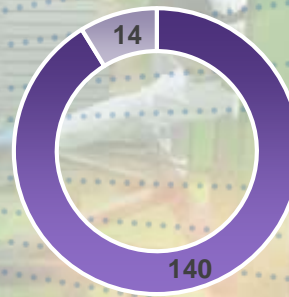
Fluidized bed process is first used to make thermoplastic powders act like liquids for application

1962

Electrostatic spraying makes powder coatings thinner and more marketable

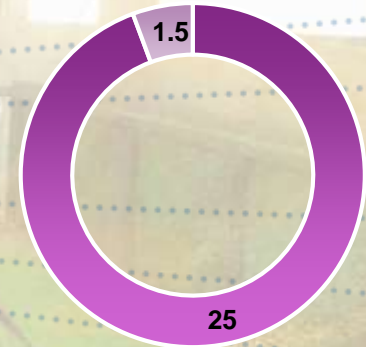
2022

Global Coatings Market (US\$ billion)



- Liquid Coatings
- Powder Coatings

North America Coatings Market (US\$ billion)



- Liquid Coatings
- Powder Coatings

Powder's place in the industry

Architectural

Powder coatings protect and enhance the parts of a building and the built environment you can see, as well as those that you can't. Offering high degree of weathering protection.

11 Architecture



Facades, cladding
and curtain walls



Window frames
and doors



Verandas and
conservatories



Frameworks and
steel structures

Powder's place in the industry

Automotive



Under Body / Under Hood

Trim Components

OEM Wheels

Body Coatings

Commercial Vehicles

ACE

Powder's place in the industry

Functional

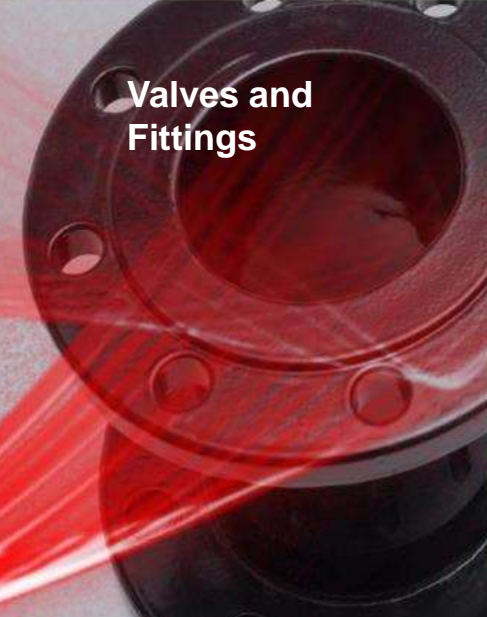
Some critical environments need superior levels of protection, and coatings that perform in the most-challenging conditions

A close-up photograph of several red electrical cables bundled together and held by a metal rack. The cables are coated with a thick, white, textured powder, which is the electrical insulation.

Electrical
insulation

A photograph of a large, dark-colored pipe lying horizontally. The interior of the pipe is coated with a thick, dark, textured powder, demonstrating internal coating.

Pipelines Internal
and External

A photograph of a large, dark-colored industrial valve or fitting. The interior of the valve is coated with a thick, dark, textured powder, demonstrating internal coating.

Valves and
Fittings

A photograph of a green, textured rebar (reinforcing bar) lying horizontally. The rebar is coated with a thick, green, textured powder, demonstrating external coating.

Rebar

Powder's place in the industry

Industrial

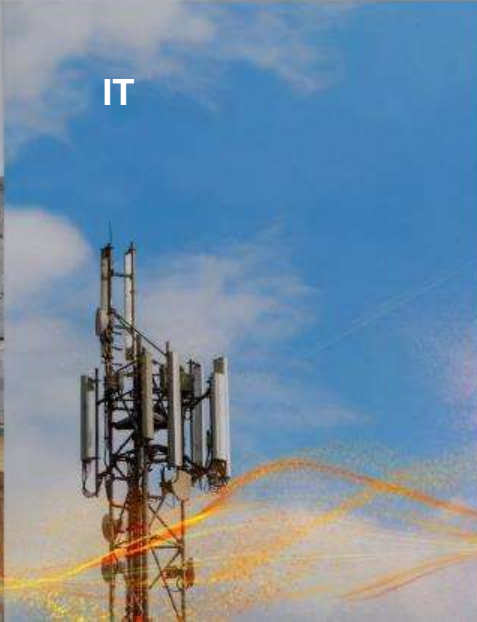
Powder coatings are an integral part of your life and ours. They protect everything from lamp shades to elevator cars, power saws to power turbines, inside and out. They protect the furniture we sit on, the oven we cook with, the toys with which our children play.

Industrial

Furniture



IT



Appliances



General Industry



Coatings: Where does powder stand globally?

North America

6%

of total coatings
market

Europe & Asia

10%

of total coatings
market

Focusing on Architectural Market

While Powder or Liquid coatings have architectural specifications in common, final decision depends in great part on:

- Fabricator Supply Chain
- Awareness level amongst stakeholders about both types of coatings
- Region or Location of Coating Application



Architectural coatings around the world

**Architectural
Powder Focus**



**Architectural
Liquid Focus**



What are the next frontiers for powder coatings in North America?



Expected expansion of powder coating frontiers

(\$billion)	2022	2032
Global	14	25
North America	2	3

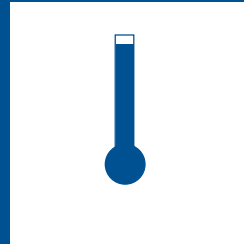
Organic Growth



Liquid to Powder Transition



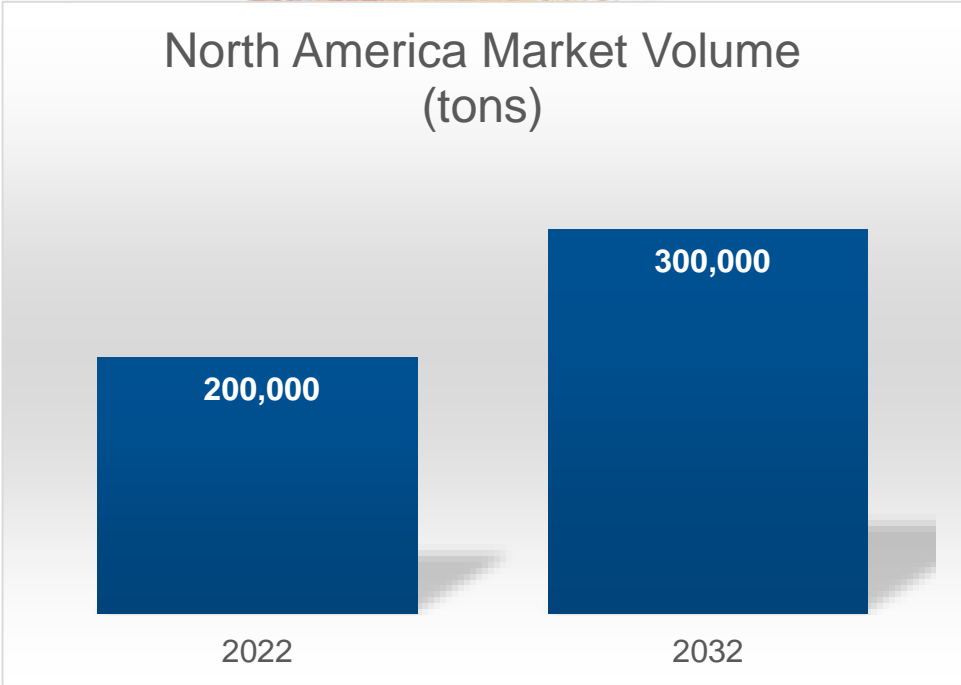
Heat sensitive substrates



Energy transition

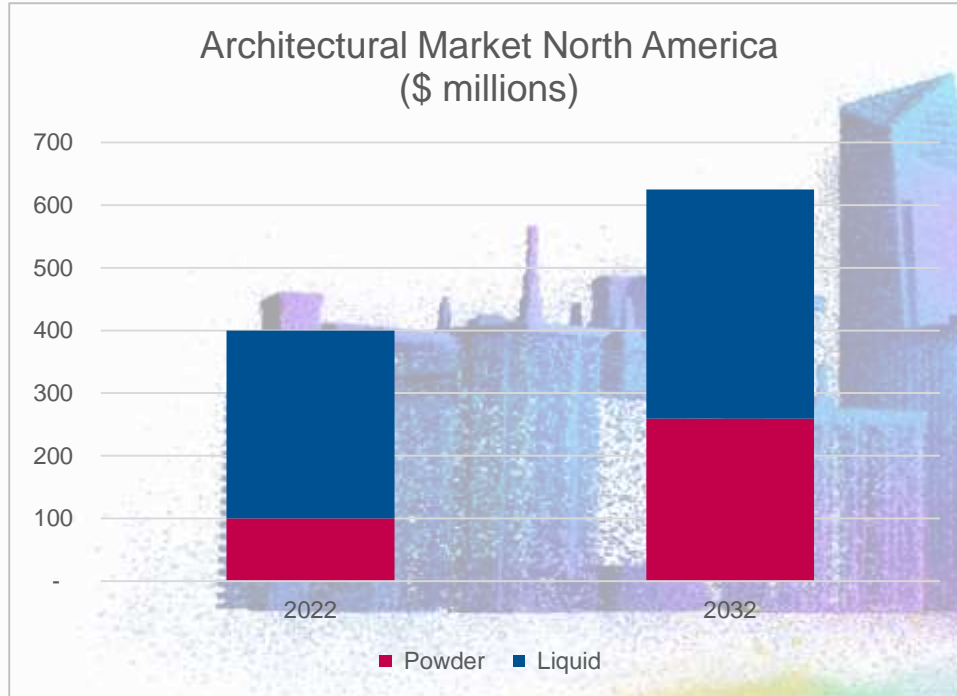


Organic Growth



Source: estimated from latest Orr & Boss

Transition to powder in Architectural North America



\$150 million growth potential

**Aluminum
Extrusion
capacity**

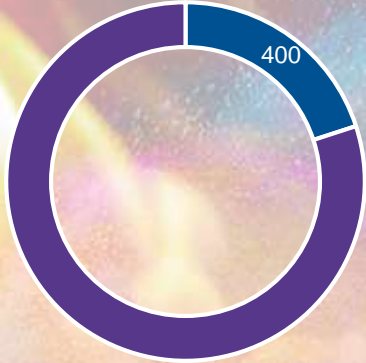
**Approved
Applicator
Expansion**

**Vertical
Painting lines**

**Stakeholder
Education**

Heat sensitive substrates potential in North America

Addressable powder coatings market & conversion by 2032 (\$ million)



■ Powder Coating



\$400 million growth potential

Resin technology

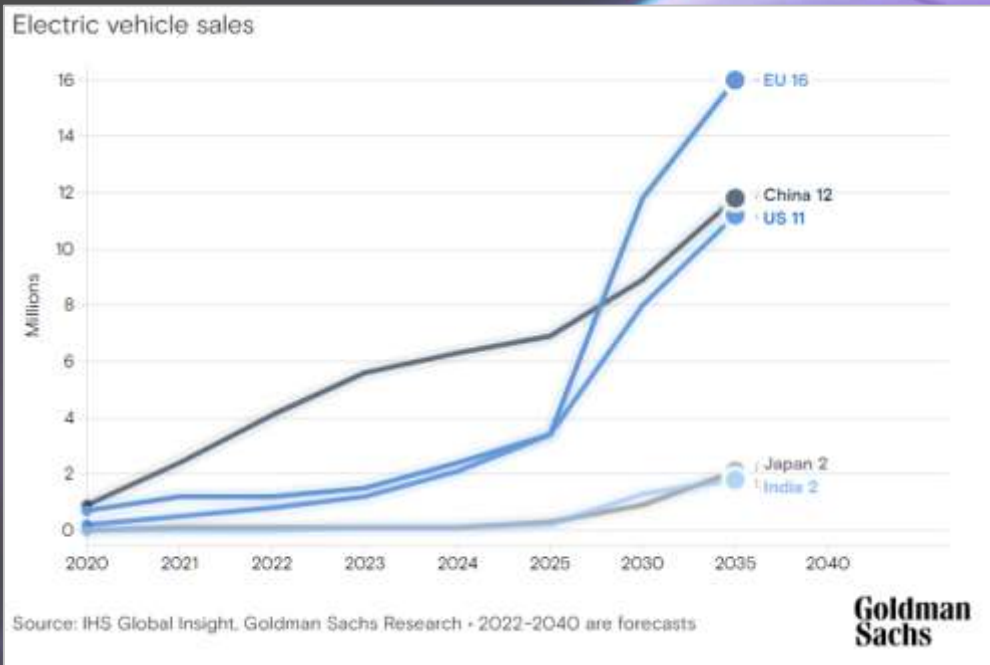
Coating manufacturing footprint

Paint application technology & lines

Customer acceptance & investments

Source: estimated from latest Orr & Boss

E-mobility and electrical insulation potential in North America



\$500 mil growth potential

EV transition & growth

Energy storage & charging stations

Battery manufacturing

Coating performance & specification

Summary

The powder coatings market has grown over the last 6 decades due to its inherent advantages

Significant opportunity for Architectural market growth with adoption of powder coatings in North America

Greater than \$10 billion growth is expected globally in powder coatings over the next decade

In North America, \$1 billion in growth will primarily come from organic growth and adoption into key new spaces

Investment in manufacturing footprint and people expertise will be key to harness the growth potential

QUESTIONS?

