

AMBEX Concrete Technologies Inc. was founded in 1991 as a subsidiary company of Béton Mobile du Québec Inc. to supply bagged concrete products for the concrete repair Industry.

Our mission is to respond in an attentive and professional manner to our client's needs and seek the most innovative, durable, cost effective and economical solution for their project. AMBEX has been able to establish itself as a reliable source for concrete repairs solutions.

AMBEX has evolved over the years and has acquired the know-how and expertise to develop innovative and niche products and solutions for the concrete repair industry. Our Research and Development program has allowed AMBEX to focus on new and innovative, cost effective and durable products and solutions for our clients' specific needs.

Among the products AMBEX has developed and promoted are;

- Cementitious anchoring capsules as an alternative to chemical adhesives
- Rapid-setting Self-consolidating concretes and mortars for concrete rehabilitation projects
- Polymer modified mortars for restoration of heritage and historical buildings and sites
- Custom formulations for Rapid-setting concretes and grouts for clients

# **CEMENTITIOUS ANCHORING CAPSULES**

AMBEX has been selling AMBEX Anchoring Capsules<sup>™</sup> AAC in North America for over 20 years. It has been a proven alternative to chemical adhesive anchors.

Their use and applications are numerous ranging from civil engineering, architectural, mining or geological projects with plain, threaded or deformed re-bar or dowels for:

- Structural repairs
- Dams and tunnels
- Bridges
- Highway and airport slabs
- Wharves and canal structures
- Reservoirs and water structures
- Retaining or building walls
- Concrete formwork anchors
- Mining anchors
- Mining-grout plugs for exploratory holes.

AMBEX has also developed a Rapid-setting cementitious capsules AMBEX ARC© and AMBEX ARC-E© that have initial pullout strengths comparable to chemical adhesives and ARC-E© is compliant to European cement requirements concerning reduced hexavalent chromium content in cement products.

Although AMBEX has for the most part sold its cementitious capsules in North America, it has also sold them in the Middle East, Europe, South America and French Polynesia.

AMBEX capsules have been used by numerous owners and agencies:

- Hydroelectric facilities;
  British Columbia Hydro: Repair to Ruskin Dam and Spillway, Hydro-Quebec: Repair to numerous dams and power stations, Manitoba Hydro: repair to spillways and dams.
- Waterways; New York Barge Canal Authority: Repair and reconstruction of locks St-Lawrence Seaway Authority: Repair of Locks
- Port facilities;
  Port of Montreal: Wharf repairs,
  City of Vancouver: Seawall repairs,
  Port of Halifax: Wharf repairs
- Highways and airports; Transport Quebec: Concrete slab repairs, Transport Ontario: Concrete slab repairs and additional lane tie-ins, Transport Canada: Airport slab repairs Minnesota DOT: Concrete pavement repairs.
- Bridge and structures; Transport Quebec: Bridge repairs, New York DOT: bridge repairs and overhead traffic signage.

AMBEX personnel develop its specialty products in-house and also work in close collaboration with Sherbrooke University for its research and development program for the improvement and development of new products and has several projects ongoing at this time.

# SELF-CONSOLIDATING CONCRETES AND MORTARS

AMBEX has been a leader in developing and producing self-consolidating concretes since its participation in an industrial research program at Laval University (1995-2002) on "Shotcrete and repair materials"

In addition to producing conventional self-consolidating concrete and mortars since 1998 in a bagged format, AMBEX has developed a unique Rapid-Setting Self Consolidating Concrete, AMBEX RS-SCC<sup>™</sup>, which is currently used for rapid repairs and shutdown projects in North America.

Our expertise ranges from concretes, mortars to foundation and consolidating grouts whether conventional or Rapid-setting.

## POLYMER MODIFIED MORTARS

AMBEX has developed polymer modified mortars and grouts for the repair and reconstruction of heritage and historical buildings and sites.

This product was developed in cooperation with the City of Montréal to withstand the rigors of the Canadian winters for resistance to scaling damage from the heavy use of de-icing salts and the numerous freeze-thaw cycles encountered.

AMBEXGROUT VM<sup>™</sup> is now also used by the City of Toronto for urban renewal projects. It is also currently used on numerous projects as a bonding agent for concrete overlays.

Projects presently under construction are; Reconstruction of Montreal Olympic Stadium Plaza, City of Montreal Reconstruction of street and sidewalks in historical part of old Montréal, City of Toronto Harbor Renewal project, Government of Canada Restoration of historical 7 storey building in Ottawa.

## **CUSTOM FORMULATION FOR RAPID-SETTING CONCRETES AND GROUT**

AMBEX developed numerous formulations with blended cements and Rapid-setting cement over the years for specific projects and clients as part of our vision to offer durable and cost effective solutions concrete repair solutions to the repair industry.

As well, AMBEX has done private labeling of its products for clients over the years.

#### **QUALITY INSURANCE PROGRAM**

All of AMBEX's published technical information is validated by an independent testing agency.

All products produced by and for AMBEX are sampled and tested for quality and consistency prior to release for shipment.

#### **TECHNICAL AFFILIATIONS**

AMBEX staff and personnel are active and participate in the following associations:

#### Centre de Recherche Interuniversitaire sur le béton

• Member of scientific advisory board

# American Concrete Institute

- Associate Member of Committee 304 Measuring, mixing, placing and transporting Concrete
- Member of Committee 355 Anchorage to concrete
- Member Committee 548 Polymers and Adhesives for concrete
- Member of Committee 552 Cementitious grouting
- Associate Member of Committee 680 Adhesive Anchor Installer Certification- Joint CRSI

## International Concrete Repair Institute

- Member of Board of directors
- Member of Committee 150 ICRI Notes on ACI 562 Repair Code Requirements

# Canadian Tunnel Association

• Member

## Lectures on concretes and repairs solutions at various universities and associations.

- Sherbrooke University, École Polytechnique (University of Montreal), École de technologies supérieures (UQAM), McGill University, Queens' University.
- American Concrete Institute, International Concrete Repair Institute.

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