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## 1. Product Name

Fluid Applied Waterproofing: Code Blue

## 2. Manufacturer

Advanced Coatings Inc.

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## 3. Product Description

**Basic Use:** A waterproofing membrane for vertical and horizontal building elements above and below grade such as walls, slabs, decks, and underground structures. Code Blue prevents the passage of water under hydrostatic, dynamic or static pressure.

Example uses include:

- foundation walls
- parking garage decks and ramps
- plazas, podiums and pedestrian concourses
- reservoirs, reflecting pools and planters
- elevator shafts
- tunnels and bridge decks

New construction or retrofit.

For commercial, industrial and institutional applications.

### **Composition and Materials:**

Code Blue is a 100% rubber copolymer liquid applied waterproofing membrane (hydrocarbon polymers in hydrocarbon solvents) that is spray applied to the substrate by manufacturer approved applicators.

The more complicated the surface to be waterproofed, the more reason to use a liquid applied membrane. Code Blue membrane can conform to all irregular shapes whereas a sheeting product



## Specifications

Code Blue specifications can be downloaded here:

[Code Blue Specifications](#)

must be precisely cut and fitted, pieced and seamed whether by hot air welding or adhesive methods. As well as ensuring a thorough waterproofing job, the ease and simplicity of application will also reduce labour costs when compared with sheeting products or built up membrane systems.

The ability of Code Blue to conform to all irregularities whether intended or not makes it an ideal choice for re-waterproofing where there is little control over initial substrate quality.

There are no seasonal restrictions because Code Blue can be applied at low temperatures providing substrates are dry and frost-free. Once the membrane is applied, it is impermeable to water. The excellent and tenacious bond of the membrane to substrates prevents the lateral movement of water between the membrane and substrate.

The system used for waterproofing:

Is a single layer membrane application (reinforced at joints or cracks) consisting of spraying a 1 mm (40 mils) thickness of membrane over a properly prepared substrate.

***Limitations:***

In all cases the waterproofing must be protected from ultraviolet light rays and mechanical damage and should not be left permanently exposed. It can be protected by means of a protection board or rigid insulation, plus landscaping, pavers, concrete or asphalt paving.

***Thickness:***

1 mm (40 mils) for single layer applications.

***Application Rate:***

Over poured walls, floors, or parged block: 2.3 m<sup>2</sup> to 3.3 m<sup>2</sup>/4.5 L (25 to 35 sq ft/gal).

Over standard concrete block: 1.9 m<sup>2</sup> to 2.5 m<sup>2</sup>/4.5 L (20 to 27 sq ft/gal).

***Colour:***

Blue

## **4. Technical Data**

***Applicable Standards:*** Meets the requirements of ASTM E-96 Type 1 water vapour permeance. Refer to the Physical Properties chart below for a complete list of ASTM Standards governing Code Blue properties.

***Environmental Considerations:*** The Code Blue membrane is non-toxic, non-carcinogenic and will not contaminate ground water.

## **5. Installation**

***Preparatory Work:***

The successful performance of Code Blue relies on a 100% bond to the substrate. To achieve complete adhesion, certain substrate requirements are necessary. Surfaces should be relatively smooth, clean, solid, free of scaling, fins, honeycombed areas, loose material, frost, dampness, dust, dirt, oil, grease, curing compounds and other foreign matter detrimental to adhesion of membrane.

Concrete surfaces should have a wood float finish or smoother. Refer to the examination section of the specification for substrate requirements by others (new construction).

Under the work of the waterproofing section of work, the following preparatory requirements include:

1. Removing loose or foreign matter which might impair adhesion of materials.
2. Filling any minor imperfections in the substrates such as form tie holes and cracks with a

proprietary mastic substrate filler (Code Blue Mastic).

3. Priming any damp substrate areas if necessary with Code Blue "Wet Prime" low viscosity primer within the moisture tolerance levels as determined by Advanced Coatings Inc.

**Methods:** Code Blue is applied using manufacturer approved applicators who undergo extensive training and are monitored for quality performance.

Code Blue is sprayed on to surfaces using alternating horizontal and vertical passes to ensure complete coverage of substrate. Penetrations are sealed water tight.

Code Blue is applied within the recommended application temperature range. It may be applied successfully at temperatures as low as -15°C (5°F).

Airless spray equipment having a minimum pressure of 20 684 kPa (3000 psi) is used to apply Code Blue.

The coverage rate of the completed membrane application provides a seamless, monolithic surface with a final thickness of 1 mm (40 mils).

Typically, one man can apply approximately 372 m<sup>2</sup> (4000 sq ft) of area per day. Drying time of Code Blue is approximately one hour, given average conditions and standard thickness, and may be influenced by relative humidity, temperature and air flow.

Protection board or insulation may be applied to membrane surfaces after an initial set time of approximately 20 minutes while the membrane is still tacky, to prevent damage from coverings such as backfill, overburden, concrete, asphalt pavement or pavers. Once applied, this protection board (or insulation) is firmly and permanently adhered into place and cannot be removed. Where insulation acts as the protective cover on vertical surfaces, wedges or clips normally used to secure the insulation, are eliminated.

**Precautions:** Protection board or insulation will adhere tenaciously to the Code Blue membrane so care must be taken to ensure proper initial placement.

Do not backfill before the recommended 24 hours after membrane application. Ensure that backfill material is free of debris, organic material, boulders, rocks, concrete block debris or any other deleterious material not considered suitable fill.

Ensure that footing drains are installed in accordance with building code requirements.

**Building Codes:** Code Blue meets the intent of Part 5 (Section 5.5.2 - Dampproofing and Waterproofing) and Part 9 (Section 9.13 - Waterproofing and Dampproofing and 9.13 - Slabs-on Ground) of the National Building Code (NBC).

## Typical Physical Properties\* (Imperial Measure. Metric chart available upon request)

Property	Test Method	Test Results
Water Vapour Permeance	ASTM E96 (water method)	0.21 perms for 40 mil dry coating grams/ft <sup>2</sup> /hr in Hg.
Elongation (%)	ASTM D412 (die C)	1800%
Low-Temperature Flexibility	Bend around 0.5 inch mandrel	Flexible to -20°F (-29°C)
Abrasion Resistance	700 PSI on .06" x .06" point moving 1" per sec.	Less than 0.10% membrane loss
Asphalt Content	Non Applicable	0.0%
180°	Metal Plate	18 lbs/inch

Crack Bridging	ASTM C836	Exceeds ten cycles to 1/8 inch at -15°F (-26°C)
Liquid Water Absorption	ASTM D95	Less than 0.5% (weight)
Resistance to Bacteria	ASTM D4299-83 (modified)	No attack
Resistance to Degradation in Soil	ASTM E154 (soil preparation)	Excellent
Resistance to Algae	ASTM G29-75 (modified)	No attack
Resistance to Fungus	ASTM D2020 (modified)	No attack
Resistance to Chemical Attack	Visual	Unaffected by chemicals in concentrations typically found in soils
Solvent Resistance	Visual	Exceeds performance of modified asphalts
Life Expectancy	ASTM D412 and ASTM D2240	Exceeds 100 years
Density		6.8 - 7.8 lbs/gal 0.9 kg/L (approx.)

\*Tests conducted by the Ortech Corporation of Mississauga, Ontario and the Akron Rubber Development Laboratory Inc., Akron, Ohio. Copy of test data available upon request.

## 6. Availability and Cost

**Availability:** Code Blue is available across Canada and throughout the U.S., usually shipped from stock. Contact Advanced Coatings Inc. for a list of applicators.

**Cost:** A current price list is available from the applicators along with the standard conditions of sale.

## 7. Warranty

The information herein is the best available relating to Code Blue. The recommendations contained herein are based on tests believed to be reliable. We warrant our products to be of merchantable quality and suitable for the purpose for which they are intended. We do not make any other warranties, expressed or implied, statutory or otherwise.

## 8. Maintenance

Code Blue membrane does not require any maintenance. Damaged areas are easily repaired by spraying over affected areas. Cold joints or re-coating is not a problem; newly applied material easily blends with existing Code Blue material to provide a monolithic membrane.

## 9. Technical Services

Technical support is available from Advanced Coatings Inc.

Call Toll Free Head Office: 1-800-787-8059 or Toll Free Branch Office: 1-800-730-0814.

Specification assistance.

Site advice and recommendations.

## 10. Related References

Accompanying Master Specification (Microsoft Word) suitable for use by specifying authorities. Advanced Coatings Inc. Code Blue Waterproofing Manu-Data literature.