

# CPD® LATEX MODIFIER 1186

## DESCRIPTION

CPD® Latex Modifier 1186 is a carboxylated styrene butadiene latex emulsion. When added to Portland cement concrete, the physical properties and chemical resistance of the concrete are enhanced considerably.

## WHERE TO USE

Applications include overlayment and repair of concrete bridge decks and bonding agent for concrete and grout overlays.

## PROPERTIES

### Emulsion Characteristics:

Type	Carboxylated styrene butadiene copolymer latex emulsion
Solids	46-48%
Specific Gravity	1.01 @ 20°C (68°F)
pH	9.5 – 10.5
Color	white
Freeze-thaw Stability	Several controlled cycles
Wt./Imperial gallon	4.6Kg (10.1 lbs)
Wt./U.S. gallon	3.8 Kg (8.4 lbs)

### Formulation and Physical Characteristics:

Portand cement Type 10	43 Kg (94 lbs)
Concrete Sand	107 Kg (235 lbs)
Crushed stone 3/8" (9.5mm)	85 Kg (188 lbs)
Latex Modifier	13.2L (3.5 U.S. gal)
Water	9.97Kg (22 lbs) maximum (includes moisture content of aggregate)
Water/cement Ratio	0.3-0.4

The above ingredients should be added to the mixer and blended for three minutes. Specimens should be cast, and allowed to cure for 28 days. Batch mixed concrete samples should be carefully prepared to minimize air entrainment. It is suggested that the sequence of addition be: crushed stone, sand, CPD® Latex Modifier 1186, cement and water. Specimens should be cast in accordance with A.C.I. practices. For the first 24 hours, the specimens should be kept covered with wet burlap (and the burlap covered with polyethylene film) before it is removed from the mold. The specimen is then air cured for an additional 27 day period before testing.

## Typical Test Results:

Air Content	3-6%
Slump	101 – 152mm (4 – 6 inches)
Water/cement Ratio	0.3 – 0.4
Compressive Strength	27.6 MPa (4000 psi)
Flexural Strength	5.2 MPa (750 psi)
Bond Strength*	Exceeds minimum
Chloride Permeability*	Meets MTO requirements

\*Test data - available on request

The above information is representative of actual production runs. Independent test results may vary from the above by approximately ± 10%.

## APPLICATION

Concrete modified with CPD® Latex Modifier 1186 may be mixed in a batch type mixer, however, extreme care should be taken in batch mixed situations to avoid excessive air entrainment. Because of this, most polymer modified concrete is mixed in a continuous mixer such as a Daffin concrete mobile mixer where the mixing time is a matter of seconds. Finishing equipment, such as the Bidwell or Gomaco Roller Finisher, produces an excellent, well compacted, smooth overlay. Actual elapsed working time is dependent upon temperature, humidity and wind velocity.

CPD® Latex Modifier 1186 modified overlays must be covered with wet burlap and polyethylene film immediately after finishing, and damp cured for a minimum of 24 hours, followed by 72 hours dry curing. A cure hour is one in which the minimum temperature is 10°C (50°F).

## LIMITATIONS

- do not use if temperature is below 7°C (45°F) or above 29°C (85°F)
- humidity 50-100 % RH
- wind velocity under 32 km/hr (20 mph)

## PACKAGING

208L (55 U.S. gal) - 210 kg (500 lbs.)  
18.9L (5 U.S. gal) pail - 19 kg. (45 lbs.)

## **STANDARDS**

Approved for use on all MTO & MTQ (Ministry of Transportation) projects.

## **STORAGE**

Although CPD® Latex Modifier 1186 is freeze-thaw stable, it is recommended that it be stored where its temperature would be between 10-29°C (50-85°F). To avoid possible difficulties in finishing the latex modified overlay the latex temperature should be between 7.2-29.4°C (45-85°F) when used.

## **SHELF LIFE**

One year from date of manufacture when stored in original unopened container, under normal heated warehouse conditions.

## **SAFETY PRECAUTIONS**

Consult Material Safety Data Sheet (M.S.D.S.) for specific instructions. M.S.D.S. #55.

## **WARRANTY**

The recommendations made and the information herein is based on our own and independent laboratory experience, and is believed to be accurate under controlled conditions. However, no warranty or guarantee of accuracy is made because we cannot cover every possible application of product nor anticipate every variation encountered in weather conditions, job conditions, methods used and types of surfaces on which the product is applied. The users shall make their own tests to determine the suitability of such products for any particular use.

CPD® makes no warranties with respect to this product, expressed or implied, including without limitation, the implied warranties of merchantability or fitness for a particular purpose.

CPD®'s liability shall be limited in all events to supplying sufficient product to re-treat and/or repair the specific area to which CPD® product has been applied. CPD® reserves the right to have the true cause of any difficulty determined by accepted test methods. CPD® shall have no other liability including liability for incidental, consequential or resultant damages, however caused, whether due to breach of warranty, negligence, or strict liability.

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