

CPD® LATEX MODIFIER



DESCRIPTION

CPD® Latex Modifier is a 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	Styrene-Butadiene Latex Emulsion
Solids	46-48%
Specific Gravity	1.01 @ 20°C (68°F)
pH	8 - 9
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:

Portland 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, 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

The above information is representative of typical values obtained under our laboratory conditions. Variations can be expected due to on site conditions and or other testing methods.

APPLICATION

Concrete modified with CPD® Latex Modifier 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 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.)

STORAGE

Although CPD® Latex Modifier is freeze-thaw stable, it is recommended that it be stored at temperatures 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 Safety Data Sheet for specific instructions. SDS #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.

THIS WARRANTY MAY NOT BE MODIFIED OR EXTENDED BY REPRESENTATIVES OF CPD®, ITS DISTRIBUTORS OR DEALERS.