

NIPPON C2M

Cement-to-Metal (powder + emulsion)

Description

NIPPON C2M is a dual component system, consisting of C2M Emulsion, a uniquely blended binding agent, and C2M Powder, a super-fine specialized cement powder. C2M has the ability to bond with metal surfaces and provide a surface coating that encases and protects old deteriorating, ferrous products. C2M contains various anti-corrosion agents and superior bonding strength. High adhesion = high corrosion resistance.

NIPPON C2M is a universal coating which can be used as a primer base coat as well as a top coat depending on project requirements. When properly applied, C2M provides both the applicator and asset owner with a cost-effective infrastructure maintenance program. C2M is environmentally friendly due to its use of recycled industrial material, extremely low VOC level, and ease of application and use. C2M has an advantage over other coating systems by providing asset protection against many freeze / thaw, chemical and abrasion threats.

NOTE: NIPPON C2M is not a structural or restorative product and should only be used on substrates that are structurally sound.

Basic Usage

The primary use of NIPPON C2M is to protect and restore ferrous materials from deterioration or further loss of structure through exposure to many naturally occurring elements. NIPPON C2M also provides a unique method to bond metal substrates to concrete. Some common use-cases include:

- Concrete Encased Metal
- Metal Stairs and Ramps
- Corrosion Under Insulation (CUI)
- Exhaust Systems
- Corrugated and Metal Roofs
- Rebar
- Steel Structures
- Boilers and Furnaces
- Metal Doors
- Pipe Exteriors

NIPPON C2M can be used in some cases as a stand-alone solution, although more often as a part of a more complex solution utilizing other NIPPON products. Additionally, C2M may also be used as a functional primer or top-coat in other coating systems.

Benefits

- Simplified surface preparation
- Can be applied via brush, spray, or roll
- Remarkable ease of application
- Extends time between maintenance cycles
- Extremely cost effective
- Resists abrasion, freeze/thaw, thermal shock
- Extreme climate resistance (-80 to +500F)
- Ease of clean-up (only water)
- Odorless
- Minimal labor requirements
- Uniquely flexible (up to 90 degrees)
- Resists various chemical environments

Properties

NVW (%):	40
pH:	7.5
Visc (cps):	75
MFFT (°C):	0
Emulsion Solvent (g/L):	35
C2M Solvent (g/L):	17
Elongation at break (%):	300
Koenig Hardness (s):	80

C2M has been tested to the following standards:

- ISO 12944
- ASTM B117-11
- ASTM D1654
- ASTM B117-D1654
- ASTM D3359
- ASTM D4060
- ASTM D4541

Test Performed	Pro-Rev	Result
Exempt Compounds ASTM D6886	6886-1.0	<0.1 Wt %
Non-Volatile Matter ASTM D2369	1194-1.1	27.67 Wt %
VOC Content EPA Method 24		43 g/L
Water by Karl Fischer ASTM D6304	6304-1.9	68.21 Wt %
Density by Pycnometer Method ASTM D70	0070-1.0	1.054 g/mL

Data is reported for VOC content per EPA Method 24.

NOTE: Water content was performed per ASTM D6304 Karl Fischer Coulometric Titration; density was performed per ASTM D70 (Pycnometer Method), which are applicable alternatives based on sample matrix. D6886 Exempt Compounds and D70 Density were subbed out.

Dry / Cure Time Guidelines for C2M		
Substrate Temperature	Time – Dry to Touch	Time – Dry to Service (Chemical Cure)
21°C / 70°F	1 hour	48 hours
32°C / 90°F	45 minutes	24 hours

Refer to our Material Safety Data Sheet (MSDS) regarding regulatory compliance, safety, hazards, spill procedures and disposal of this product. While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/ use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE.