

**WB MMA COATING**
*Updated Jan 2018*

NP WB MMA Coating is a high durable coating formulate based on Methyl Methacrylate polymer specially for exterior surfaces. This premium exterior emulsion is easy to apply and forms a smooth thorough film which resistant to sun, rain, wind or frost. Its microstructure keeps water out but allows water vapour to escape through it, and thus preventing blistering issue.

**Product Features:**

- Durable against harsh weather
- Non-added lead or mercury
- Easy to apply and forms a smooth protective surface
- Excellent durability for exterior application
- Reduce water absorption
- Excellent Anti Carbonation
- Excellent barrier to carbon dioxide, chloride ions and oxygen
- High tensile strength and flexibility
- Excellent alkaline resistance
- Good resistance to abrasion and mechanical damage.

Paint Type	Product Type	Finishing	Recommended Substrate	Pack Size
Water based	Exterior	Low Sheen	Concrete surface of railway, bridge, MRT, LRT, Concrete Jersey Barrier, Road Kerb, Guideway	20 Litres

**Composition**

Pigment	: Mainly Titanium Dioxide, Iron Oxide, Carbon Black and Organic Pigments and Mineral Extender
Binder	: Methyl Methacrylate polymer
Thinner	: Water

**Technical Data**

Drying Time	: Touch Dry : 30 minutes (Dependent on temperature and humidity)
	: Hard Dry : 60 minutes (Dependent on temperature and humidity)
Recoating Time	: 2-3 hours (Dependent on temperature and humidity)
Dry Film Thickness	: Around 75 µm per coat
No. of Coats	: 2 coats minimum
Theoretical Coverage	: ~ 6m <sup>2</sup> per litre per coat (Actual coverage is dependent on substrate condition, application method, application condition and finishing appearance)
Volume Solid	: ~ 50%
Shelf Life	: Up to 12 months in tight sealed container

**Application Method**

Brush / Roller	: Preferable not dilute for best performance.
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**Recommended Coating System**

Sealer / Primer	: Nippon Silane Siloxane Primer	: 2 coats wet on wet
Top Coat	: Nippon WB MMA Coating	: 2 coats

**Surface Preparation**

Remove all loose, defective paint or powdery residues, loose chalk, dust, fungus, algae and foreign matter. Treat any areas affected by fungus growth with Fungicidal Wash Solution. Repair cracks, uneven surfaces with suitable exterior grade fillers. Smoothen the filler areas with sand paper. Surfaces to be painted must be cleaned thoroughly and dry, it must be free from dirt, grease and other foreign matters. Allow all surfaces to dry completely prior to painting. Avoid painting

when the moisture content and alkalinity of the walls are still high. (Recommended painting specification requires the moisture content of the walls to be below 16% measured by protimeter and alkalinity of the walls to be below pH9.)

**Cleaning**

Clean up equipment with water immediately after use.

**Safety Precautions**

- Keep container tightly closed and keep out of reach children or away from food and drink.
- Ensure good Ventilation during application and drying.
- When applying paint, it is advisable to wear eye protection.
- In case of contact with eye, rinse with plenty of water immediately and seek medical advice.
- Remove splashes from skin by using soap or water.
- Paint must always be stored in a cool place.
- When transporting paint, care must be taken. Always keep container in a secure upright position.
- Dispose off any paint waste in accordance with the appropriate Environment Quality Regulations.

**Note**

\* Theoretical Coverage is based on a mathematical formula

$$\left[ \frac{\text{Volume Solid \%} \times 10}{\text{Dry Film Thickness}} \right] = \text{m}^2/\text{lit}/\text{coat}$$

and does not consider LOSS FACTORS.

Variables like porosity of substrate, application method, dilution ratio, dry film thickness, opacity and so on will affect the loss factor and can vary from 30% - 50% or even more.

The above information is given to the best of our knowledge based on laboratory tests and practical experience.

However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself.

We reserve the right to alter the given without prior notice.

Typical Technical Data	Result	Test Method
Viscosity / KU	125	-
Specific Gravity	1.34	-
Volume Solid	50	-
Solid Content	63	-
Drying time at 30°C, minutes	30 (touch) / 60 (hard)	-
Adhesion to Concrete, N/mm <sup>2</sup>	2.4	ASTM D4541
Tensile Strength at Break, N/mm <sup>2</sup>	5.1	ASTM D412
Elongation at Break, %	970	ASTM D412
Crack Bridging /mm	~ 31	BS EN 1062-7
Water immersion	No blistering and delamination	-
QUV / UV A – 2000 hours	No chalky, cracking, blistering, peeling	ASTM D4587
Carbon Dioxide permeability for coating material	296 metres	BS EN 1062-6
Reduction in Chloride ion penetration at 28 days / %	99.5	ASTM C1202
Water Vapour Transmission / (g/m <sup>2</sup> per day)	16	BS EN ISO 7783
Wet Scrub abrasion / 1500 cycles	Pass	ASTM D2485
Resistance to algal growth	No sign of growth	SS345
Resistance to fungal growth	No sign of growth	MS133 G6
Resistance to Alkalinity / 3 days immersion in 2% NaOH solution	No chalky, peeling and blistering	-
VOC Content	Below 10g/L	ISO 11890-2