



PLASTIC COATING™

DESCRIPTION

PLASTIC COATING is a revolutionary bituminous highly viscous product, engineered to satisfy extremely demanding conditions. It is formulated with specific wetting agents, special inert additive compounds and advanced surface-active agents that form together to create, an adherent protective, homogeneous and elastic dense layer, that will protect all metal surfaces and spaces such as ballast tanks, bulk holds, dry holds, decks, docks, etc, against corrosion.

ADVANTAGES AND CHARACTERISTICS

- Once applied it protects and keeps the coated surface free from corrosion.
- Enriched with fine rubber powder and is 100% water-soluble.
- Can safely be used on all metal surfaces and metal alloys.
- No negative effects on rubber or plastic compounds.
- Forms a flexible, elastic and long lasting coating with insulating properties
- Harmless to macro and microorganisms.
- Provides quick and reliable results, whilst being very stable.
- Cost effective, simple to apply and use.

PHYSICAL PROPERTIES

PLASTIC COATING is a concentrated, bituminous base coating material consisting of special inert additives, wetting agents and surface-active agents.

Appearance/color	: Viscous, Black color
Odor	: Odorless
Specific gravity	: 0.93-0.97 gr/cm ³ 15°C
Water content	: 48%
Solids content	: 52%
Oxygen uptake (mg/g)	: 0.97

PACKAGING

Order Number	: 922001 (20 ltrs)
Container	: Steel drum

APPLICATION AND USE

A. Dosing Procedure

PLASTIC COATING is applied in quantities proportional to the surface area to be covered, and should be diluted with 8-12% water.

Note that 1 liter of **PLASTIC COATING** can cover an area of approximately 2-3 m² at a layer thickness of 220 microns. However, in cases where the surface to be treated is new build then the quantity to use is smaller than for high pitting surfaces.

B. Preparation

PLASTIC COATING must be applied to a clean, dry surface, free of rust and any loose particles. Therefore the following steps must be taken:

1. Initially, remove loose rust scales and rust blisters either by a high-pressure water supply and/or by water/sand blasting, for heavy accumulation, use a high-pressure machine.
2. Apply under pressure, a **RUST SHIELD PHOS** solution with water at a ratio of 1:2, by use of spraying equipment.
3. Leave solution to act for 15 minutes and then wash thoroughly with a high pressure water source.
4. Let surface dry completely before applying the **PLASTIC COATING**. To assist with quicker drying, use a hot air fan.

C. Application Procedure

1. Make sure that the surface to be coated is dry and clean.
2. Dilute **PLASTIC COATING** with 8-12% water and mix very well.
3. Apply on the surface by a brush, after the product has been strained, so that to avoid any possible clogging.
4. Allow the coated surface to dry completely for at least 48 hours in dry environment and for at least 96 hours in a humid environment. However, always check the coating on daily basis. Longer time periods may be needed for drying, than those prescribed above.
5. After drying, ballasting is possible.



TESTS AND APPROVALS

PLASTIC COATING has been tested and approved as specified by international testing methods by:

- BUREAU VERITAS
- DET NORSKE VERITAS
- HELLENIC REGISTER OF SHIPPING
- EFEH AND ASSOCIATES (non toxicity certificate)

SAFETY AND HANDLING

HANDLING	Handle with care. Store in a dry, cool and well ventilated environment.
SAFETY	IMMEDIATE ACTIONS
Eye Contact	Avoid Eye contact. Otherwise, flush with plenty of water for a few minutes. Seek medical attention.
Skin Contact	Avoid Skin contact. Otherwise, wash contaminated area thoroughly with water. Seek medical attention.
Inhalation	Do not breathe gas/vapors. Otherwise, seek fresh air source at once. Seek medical attention. In case of insufficient ventilation, wear suitable respiratory equipment.
If Swallowed	Avoid ingestion. Otherwise, consume a considerable quantity of water. Do not induce vomiting. Seek medical attention.
GENERAL INSTRUCTIONS	Avoid spillage, splashing and mishandling. Precautionary measures for body protection are strongly recommended before use.

Read the Material Safety Data Sheet before using this product.

For detailed information on safety and health, please refer to Material Safety Data Sheet and/or Product Label.

MARICHEM MARIGASES Worldwide Services or any subsidiary or associated companies warranties of merchantability and competence, if any, along with any expressed warranties concerning this merchandise, shall not be actionable or pertinent or effective if the good is used contrarily or differently to the directions herein and in no other way due to impending hazards from inappropriate use of the good explained herein. Merchandise might vary insubstantially depending on country of origin. The information provided concerning merchandise is exclusively presented to the customer.



**Bureau
Veritas**

Industrial Branch

INSPECTION REPORT

BVLPR 914.075

REFERENCE : BVLPR 914.075

SUBJECT : WITNESSING THE SAMPLE CONTAINER OPENING AND SAMPLE ANALYSIS OF COATING MATERIAL

ORDERED BY : MARICHEM WORLDWIDE SERVICES

DATE OF INSPECTION : AUGUST 2ND, 1991

PLACE OF INSPECTION : NAIAS SCIENTIFIC ANALYTICAL LABORATORIES
NEOSIKON 46B, 185 36 - PIRAEUS - GREECE

I, the undersigned Surveyor of the Industrial Branch of BUREAU VERITAS, at the request of Messrs MARICHEM WORLDWIDE SERVICE, declare to have witnessed the opening and physical of one sample of coating material, provided by MARICHEM themselves, at NAIAS SCIENTIFIC ANALYTICAL LABORATORIES LTD and report upon as follows:

I) IDENTIFICATION OF SAMPLE

Material : Bituminous base coating material
Name : Marichem Plastic Coating
Container : White plastic, unsealed
Weight : One (1) kg
Material Colour : Black, non flowing

II) METHODOLOGY AND ANALYSIS RESULTS

Sample was opened and analysis was carried out at NAIAS SCIENTIFIC ANALYTICAL LABORATORIES LTD. personnel in our presence, as per flammability, firm set flexibility, water resistance, direct flame, corrosive protection. The ASTM - 02939 methodology was strictly adhered to. The results are as follows:

PARAMETER	RESULT	COMMENTS
Flammability	NEGATIVE	Does not ignite at 32° C
Firm Set	POSITIVE	Forms an acceptable stable surface
Flexibility	POSITIVE	No significant cracking
Water Resistance	POSITIVE	Passed the test of fresh water
Direct Flame Test	POSITIVE	<ul style="list-style-type: none">• Does not continue to burn following 10 sec. exposure to direct flame• Limited flowing observed following 60 sec. exposure to direct flame

III) CONCLUSION

The sample that was provided passed the above tests satisfactorily.

Piraeus, 23 August 1991

CH. BITROS
SURVEYOR
BUREAU VERITAS - PIRAEUS





DNV
DET NORSKE VERITAS

SURVEY REPORT

TESTS OF MARICHEM EMULSIFIED PLASTIC COATING

The undersigned Surveyor at the request of "MARICHEM WORLD WIDE SERVICES", did attend at NAIAS SCIENTIFIC ANALYTICAL LABORATORIES S.A., 46B Neosiron Str., 185 36 Piraeus on 95.02.28 and subsequently in order to witness following tests which we carried out in accordance with the American National Standards D 2939-78 and in accordance with the test programme submitted to us on 95.02.23:

TEST RESULTS

- Firm Set :** Firm set attained Light rubbing didnot brake, rolled or displaced the surface coating.
- Flexibility :** No significant cracking of coating observed.
- Resistance to Water :** No blistering or re-emulsification observed.
- Flammability :** No flash or ignition up to 32 \pm 1 °C.
- Heat Test :** No sagging-blistering-slipping at the end of the test period observed.
- Direct Flame Test :**
- a) No continuous combustion observed after 10 sec of flame plus 10 sec of resting period.
 - b) After continuous exposure to flame no serious bleeding of oily material nor slipping, run down or loss of charred material from the test panel observed.

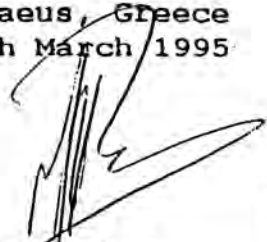
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It is agreed that save as provided below Det Norske Veritas, its subsidiaries, bodies, officers, directors, employees and agents shall have no liability for any loss, damage or expense allegedly caused directly or indirectly by their mistakes or negligence, breach of warranty, or any other act, omission or error by them, including gross negligence or willful misconduct by any such person with the exception of gross negligence or willful misconduct by the governing bodies or senior executive officers of Det Norske Veritas. This applies regardless of whether the loss, damage or expense has affected anyone with whom Det Norske Veritas has a contract or a third party who has acted or relied on decisions made or information given by or on behalf of Det Norske Veritas. However, if any person uses the services of Det Norske Veritas or its subsidiaries or relies on any decision made or information given by or on behalf of them and in consequence suffers a loss, damage or expense proved to be due to their negligence, omission or default, then Det Norske Veritas will pay by way of compensation to such person a sum representing his proved loss. In the event Det Norske Veritas or its subsidiaries may be held liable in accordance with the sections above, the amount of compensation shall under no circumstances exceed the amount of the fee, if any, charged for that particular service, decision, advice or information. Under no circumstances whatsoever shall the individual or individuals who have personally caused the loss, damage or expense be held liable. In the event that any provision in this section shall be invalid under the law of any jurisdiction, the validity of the remaining provisions shall not in any way be affected.

CONCLUSION

The sample provided passed the tests satisfactorily.

Piraeus, Greece
20th March 1995



S. Mavrelos
Senior Surveyor

