

CERAMIC PRO MARINE

PRODUCT IDENTIFICATION

PRODUCT NAME	Ceramic Pro Marine
PRODUCT VERSION	V1.0
PRODUCT CODE	M012
DOCUMENT REVISION	V1.0-R3
ISSUE DATE	2026-09-01
MANUFACTURER	Nanoshine Group Corp.
COUNTRY OF MANUFACTURE	Taiwan (R.O.C.)



PRODUCT DESCRIPTION

TECHNICAL DESCRIPTION	Ceramic Pro Marine is a permanent, industrial-use nano-ceramic protective coating developed for surfaces exposed to marine and coastal environments, including submerged surfaces below the waterline. It forms a clear, durable barrier providing resistance to seawater, environmental contamination, oxidation, corrosion, UV exposure, and chemical attack while creating a low-adhesion surface that supports fouling release. For submerged applications, Ceramic Pro Marine provides an environmentally responsible alternative to conventional biocidal antifouling coatings by reducing the ability of marine growth to firmly adhere to the treated surface rather than relying on the release of biocidal substances.
PRODUCT CLASS	Layer-Forming Protective Coating / Hydrophobic Surface Treatment
FORMULATION SYSTEM	Solvent-Based
SOLVENT / CARRIER TYPE	Hydrocarbon-Based
COMPONENT CONFIGURATION	Single-Component (1K)
TECHNOLOGY	Nano-Ceramic Coating Technology
SYSTEM ROLE	Stand-Alone Coating
LAYERING TYPE	Single-Layer Coating
CURING MODE	Ambient Cure / IR-Assisted Cure

COATING PERMANENCE	Permanent
PRIMARY FUNCTIONS	Chemical Resistance / Environmental Contaminant Protection / Oxidation Protection / Corrosion Protection / UV Protection / Mar Resistance / Stain Resistance / Hydrophobic Performance / Water Repellency / Contaminant Repellency / Self-Cleaning Performance / Reduced Surface Adhesion / Easier Maintenance / Surface Slickness / Visual Depth Enhancement

TYPICAL TECHNICAL PROPERTIES

PROPERTY	VALUE	TEST METHOD / STANDARD
AS SUPPLIED		
Density	0.94-0.96 g/cm³ at 25 °C	ASTM D1475
Viscosity	20-30 mPa·s at 20 °C	ASTM D2196
CURED COATING		
Coating Thickness	10 microns / up to 30 microns (without leveling)	ASTM D7091
Water Contact Angle	110°	ASTM D7334
Pencil Hardness	9H	ASTM D3363

APPEARANCE

LIQUID APPEARANCE	Clear, colorless, homogeneous liquid, free from visible particles or sediment
CURED APPEARANCE	Clear and transparent; Gloss

INTENDED USE

INTENDED USE DESCRIPTION	Ceramic Pro Marine is intended for professional protection of surfaces exposed to marine and coastal environments, including vessel hulls and other surfaces above and below the waterline. It is suitable for submerged and seawater-exposed applications where resistance to fouling, corrosion, chemical exposure, UV radiation, and environmental contamination is required. The coating may also be used on compatible marine infrastructure, equipment, and other surfaces operating in aggressive coastal or offshore conditions.
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APPLICATION AREAS	Transportation / Marine / Industrial / Architectural / Infrastructure / Professional Equipment / Household Applications
SUITABLE SUBSTRATES	
Painted & Coated Surfaces	Automotive Paint / Clear Coat / Painted Surfaces / Powder-Coated Surfaces / Factory-Applied Coatings / Refinished Surfaces
Metal Surfaces	Bare Metal / Coated Metal / Polished Metal / Brushed Metal
Mineral & Ceramic Surfaces	Ceramic / Porcelain / Natural Stone / Engineered Stone / Concrete / Masonry
Polymer Surfaces	Plastics / Acrylic / Polycarbonate / Other Polymer Surfaces
Composite Materials	Carbon Fiber / Fiberglass / Other Composite Materials
Wood-Based Surfaces	Natural Wood / Finished Wood / Wood-Based Materials
SURFACE FINISH COMPATIBILITY & RETENTION	Gloss — Preserved; Satin — Modified; Matte — Modified
USE ENVIRONMENT	Exterior
APPLICATION LEVEL	Professional Use Only

RESTRICTIONS AND LIMITATIONS

SUBSTRATE DEFORMATION LIMITATIONS	Not suitable for substrates subject to significant stretching or repeated elongation.
EXISTING SURFACE TREATMENT LIMITATIONS	Do not apply over existing waxes, sealants, hydrophobic treatments, or protective coatings unless specifically approved.

SURFACE REQUIREMENTS

SURFACE CLEANLINESS	Fully Clean / Free from Oils, Grease, Silicone, Waxes, Polishing Residues, Existing Coatings (unrelated to the current build), and Other Contaminants
SURFACE MOISTURE CONDITION	Fully Dry
SURFACE TEMPERATURE	Recommended range: 10–30 °C
EXISTING COATING / PAINT CONDITION	Fully Cured / Fully Dried and Ready for Service

For complete substrate preparation procedures and product-specific preparation steps, refer to the current Installation Manual.

APPLICATION CONDITIONS

APPLICATION METHOD	Applicator Application / Spray Application / Brush Application
RECOMMENDED AMBIENT TEMPERATURE	25 °C
RECOMMENDED RELATIVE HUMIDITY	50% RH
APPLICATION ENVIRONMENT	Clean, Dust-Free Indoor Area / Clean Controlled Area
RECOMMENDED LAYERS	1
CONSUMPTION PER LAYER	10-20 ml/m ²

APPLICATION & CURING REFERENCE CONDITIONS

The application and curing times stated in this document are provided as reference values based on an ambient temperature of 25 °C, 50% relative humidity, and the typical coating thickness specified in this TDS. Actual timing may vary depending on substrate type and absorbency, application method, applied product quantity, final layer thickness after leveling, environmental conditions, and installer technique. The stated values should therefore be used as a technical reference rather than absolute process limits. During application, coating behavior should be observed and timing adjusted where necessary to achieve the intended result.

APPLICATION TIMING

FLASH TIME	30-60 seconds after application
LEVELING / WIPE-OFF WINDOW	approximately 60 seconds

CURING

TACK-FREE TIME	1 hour
WATER CONTACT RESTRICTION	24 hours
RELEASE FOR SERVICE / DELIVERY	24 hours
TIME BEFORE WASHING	7 days
FULL CHEMICAL CURE	7 days

For accelerated or alternative curing procedures (if available), refer to the current Installation Manual.

STORAGE AND SHELF LIFE

STORAGE TEMPERATURE	5–25 °C
STORAGE CONDITIONS	Store in a dry place. Do not freeze, overheat, or expose to direct sunlight.
SHELF LIFE — UNOPENED	2 years in sealed packaging
AFTER OPENING	Use as soon as possible after opening.

PACKAGING

SECONDARY PACKAGING	Rigid Presentation Box
PRIMARY CONTAINER	Glass Bottle / Aluminum Bottle
AVAILABLE VOLUMES	Glass Bottle: 50 ml / Aluminum Bottle: 1 L

HEALTH AND SAFETY

GENERAL SAFETY	Chemical product. Handle and use in accordance with the current Safety Data Sheet (SDS) and product label.
SAFETY DATA SHEET	Refer to the current product Safety Data Sheet (SDS) for complete information on hazards, safe handling, personal protective equipment, first aid, storage, disposal, transport, and emergency measures.

TECHNICAL DATA BASIS

The technical data stated in this document are based on internal laboratory testing, third-party testing where applicable, and current technical knowledge of the product.

Unless otherwise specified, all stated values are typical values obtained under controlled test conditions and are provided for technical reference. They should not be interpreted as guaranteed specification limits for every individual production batch.

Actual results may vary depending on substrate type and condition, application method, applied quantity or coating thickness, environmental conditions, curing conditions, and other application-specific factors.

Where a specific test method, standard, substrate, or test condition is relevant to the interpretation of a reported value, it should be stated together with that value.

LEGAL & TECHNICAL DISCLAIMER

The information and recommendations contained in this Technical Data Sheet are based on current product knowledge and the technical data available at the time of publication.

Actual product performance may vary depending on substrate type and condition, surface preparation, application method, environmental conditions, curing conditions, subsequent maintenance, and conditions of use. The product must be applied in accordance with the specified requirements and the current Installation Manual.

Users are responsible for verifying product suitability for the intended substrate and application, particularly where materials, conditions, or uses fall outside those specifically described or validated by the manufacturer.

This Technical Data Sheet does not replace the applicable Safety Data Sheet (SDS). Refer to the current product SDS for complete information regarding hazards, safe handling, personal protective equipment, first aid, storage, disposal, and emergency measures.

For complete surface preparation, application, curing, and installation procedures, refer to the current Ceramic Pro Installation Manual applicable to the product.

Always refer to the most recent published version of this Technical Data Sheet. Product specifications, formulations, recommendations, and supporting documentation may be updated as part of ongoing product development and technical review.

This document does not modify or replace any applicable product warranty terms or other contractual conditions.