

#### TYPICAL USES

#### OPERAVIVA-ITALYMARINE

is a eco- friendly foul release coating for propellers, shafts, rudders, trim tabs, stern drives and other metal parts permanently immersed in water

#### **KEY FEATURES**

- Omniphobic foul release
- Abrasion resistant
- Chemical resistant
- Anticorrosion Protective.
- Biocide-free
- Highly durable
- Average life service 3 years

#### APPLICATION PLUS

- Single layer nano coating
- is easy to apply: Do-It-Yourselfer's
- Easy to maintain, no need for a complete re-coating to repair local issues
- longer maintenance intervales
- No need for periodic re-haling and drydock inspection



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#### **PRODUCT & APPLICATION DATASHEET**

### OPERAVIVA - ITALYMARINE TM

Foul-release coating for boat hulls and underwater assets

#### **Innovation & Research**

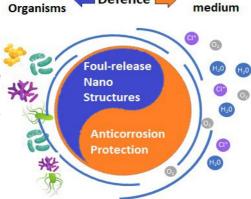
**OPERAVIVA-TALYMARINE™** is a self polishing acrylic copolymer 2K nano paint, especially designed to prevent the attachment of marine organisms and the slow growth of sub aquatic organisms on the structural body of the ship hull It has been formulated to create a super flat super hard surface biocide free layer that is so slippery that no marine growth can stick even in static conditions

#### **Protection & Maintenance**

# **OPERAVIVA-ITALYMARINE™** is an innovative nano composite paint single layer top coat resistant to wear and abrasion.

It is perfectly adherent to the metallic or composite surfaces and constitutes a long-term mechanically stable barrier against corrosion on metal hulls subject to degradation and weakening. There is no at all need for harsh and frequent abrasive scrubs to remove the accumulating hard marine growth especially in static underwater. Only a very mild wipe completely can remove the micro-marine organisms such as barnacles, slime, and weeds that are unable to anchor themselves to the surfaces.

## Design Concept Fouling Defence Corrosive



Single Integrated Nano-coating

Moving surfaces (hulls, propellers, foils) are entirely self cleaning from 10 knots upward. The nano coating allows the vessel to glide smoothly and loss reducing resistance, drag and speed loss. This self cleaning property also eliminates the need to dry re-dock the ships regularly. Extraordinary maintenance can be scheduled over longer 3-4 years periods of time

#### Eco-friendly & sustainable

**OPERAVIVA - ITALYMARINE™** is an environmentally safe long life foul-release coating which prevents the attachment of marine growth by low critical surface tension. It does not contain copper or tin compounds or any other toxic substances which might cause environmental pollution.

#### Performance & efficiency

**OPERAVIVA - ITALY MARINE™** ensures that all boats can run at peek speed and & maintain efficiency travel top performance at all the time. (30% FUEL SAVINGS)

This self cleaning property also eliminates the necessity to clean the hull after long periods of inactivity If required it is more than sufficient to have a diver wipe of effortlessly the marine growth without taking the boat out of the water. Extraordinary maintenance can be scheduled over longer 3-4 years periods of time.



#### **SERVICES**

Support is available on line 24/7
Tel: +39- 339 6785894
Email: support@italymarine.it

#### **Application Support**

Training on the job at Italian Headquarters LEINI' (TO) ITALY Make an appointment Tel: +39 335 353527

## Technical & Commercial

Application at customer site Make an appointment Italy: +39 348 550 7962 For more information on any of our products or services please visit us:





Scan for **MSDS** Material Safety Datasheets



#### PRODUCT & APPLICATION DATASHEET

#### Physical Features at supply

Binder type [1]	Acrylic - 2K bicomponent product				
Appearance	Glossy- medium viscosity liquid				
Colour	Trasparent - can be pigmented on request				
Odour:	typical (N-butyl acetate)				
Supply Vx	23 ± 3" CF/16 at 20°C				
Flash point	23 °C <= Fp <= 55 °C				
Specific Density	0,950 ±0,030 Kg/l at 20°C				
Solids by volume	70± 1%				

[1] OPERAVIVA-ITALYMARINE™ does not contain following substances Copper Oxide (n. CAS 1317-39-1); Copper Pyrithione (n.

CAS 14915-37-8); Tributyltin (TBT) compounds

#### **Dry Product Features**

Dry film thickness	70-100 μm DOUBLE COAT
Finish	Gloss 95%
Abration resistance	4mg/cycleTaber Waer Index (ASTM D4060)
Color	Pigmentable in the full RAL scale with pigments Series 8 CME PIGMENTS
Coverage	6 m2 /litro con uno spesso di 70 μm DFT

#### Instuction for use

	or use									
SURFACE PREPARATION	- Remove any contamination that could interfere with the adhesion of the coating such as old antifouling layers.  - Remove any oils, greases, etc. by cleaning with high pressure fresh water to carefully eliminate all traces of dust/particulate residues  - Uniformly abrade the pre-existing surface coating with medium/coarse 400-600 grain sandpaper to obtain complete removal of the previous coatings.  - Sealing primer: Whether or not to use a sealant/tiecoat depends on the type and condition of the hull after having completely removed the pre-existing antifouling									
RE-DOCKING	At the next dry-dock it is NOT NECESSARY to completely remove the previous application, but after sanding with 400-600 grain sandpaper it is possible to repeat the same application with OPERAVIVA-ITALYMARINE									
CATALYSER (Hardner)	Mix ratio in weight: OPERAVIVA-ITALYMARINE (100%) + CATALIZZATORE 34 (30%) Shake well before use. Important: remember to close catalyst botlle after use do not let exposed to air									
APPLICATION	Brush; Roller Airless spray gun or HVLP spray gun - only PROFESSIONAL USE									
METHODS	Nozzle tip 1,2 -1,3 mm Pressure at nozzle (minimum) 3,0 bar /43,51 psi									
OPERATING ENVIRONMENT	As dictated by normal good painting practice. In confined spaces provide adequate ventilation during application and drying. Recommended conditions for application are 20 – 25°C (68 - 77°F) and 30 – 60% relative humidity.									
DRY DOCKING DRYING & CURING TIME	The boat can be placed in the water when the paint has fully cured, usually after 12 hours. Postpone for a few days at low ambient temperatures or when the hull is not exposed to direct sunlight.					23° C	40° C			
	Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.					1h	30min			
	Dried /cured for immersion Minimum time before the coating can be permanently immersed in water.					12h	12h			
	Curing <sup>[1]</sup> Important Note The recommended shortest time before the next coat can be applied. Is maximum between overcoating is 30-60 minutes . Do NOT apply a second coating layer on previous dry layer									
	Pot life	Pot life after ca	atalyzer mixing is max	2 hours						
	Once the coating	ng application	has been done there	is no need to float the and if requi	red it can	be stored	d dry-			
	docked indefin									
STORAGE INSTRUCTIONS	Packaging	cartone					250 ml; 500 ml; 1000ml			
	Shelf life	e Temperatura di conservazione consigliata				tra 3°C -60° C				
		IM.TOP.18 OPERAVIVA-ITALYMARINE			5 anni nella confezione originale NON APERTA					
	Stabilità prodotto	IM.CAT.34 CATALIZZATORE 34		6 anni nella confezione originale NON APERTA						
				< 60 minuti se lasciato APERTO o esposto all'aria						

**CAUTION** This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Newfantachrome technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product

HEALTH AND SAFETY Please observe the precautionary notices displayed on the container and on MSDS Material Safety Data Sheets for each product. Use under well ventilated conditions. Do inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with vater and medical attention south?

WARRANTY & LIABILITY LIMITATIONS Information contained herein is accurate to the best of our knowledge. The coating properties and cured coating properties listed herein represent typical OPERAVIVA and are not meant as specifications. Newfantachrome International SrI insists that users conduct their own tests for applicability and fitness for any purpose. Statements concerning use of products or formulations described herein shall not be construed as a warranty or license to infringe any patent or trademark, and no liability for infringement arising out of such use is assumed. Please refer to Newfantachrome International Standard Terms and Conditions or to your Purchase Agreement with Newfantachrome International for the warranty coverage of Newfantachrome International's products.