



### **SUMMER 2024**

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Finally Summer is on it's way. After a lot of rain in the winter and during the spring months the sun starts to give all of us a summer vibe. Some already went on summer holiday and others still have to go. We wish you all a nice and relaxing summer break.

With this newsletter we show you some product news and developments and we welcome you in the world of LED light. We invite you to visit our premises to see and feel all kind of lighting solutions for your applications no matter if it is for use at sea or on land.

Are you preparing in water repairs for your vessel or floating structure we invite you to read at page 7 the hi-end solutions by Miko Marine Norway, specialists in sealing off openings under the waterline such as sea chests. The Miko products are world wide used by many shipowners and with large floating structures. Miko Marine Products are also in use with a multiple armed forces to protect and maintain their vessel.

Our website rmn.eu is very frequently used by many of our customers because of all the detailed information that can be found. We are at this moment very busy to update many of the product information sheets (in PDF free to download). The new sheets have a fresh new design and the upcoming months more will follow. Feel free to discover the RMN site.

Which topics are in this newsletter:

- 1) Wencon NEW UW Coating LV.
- 2) Wencon NEW CS Hi-Build
- 3) Wencon NEW Exhaust Repair Compound
- 4) Wencon Two-Layer applications
- 5) RMN Welcome in the world of LED Light
- 6) RMN Doublepower!! Custom made light solutions
- 7) Miko Marine Sea Chest Blanking solutions
- 8) Sealite SL-75 Now with optional Satellite Communication
- 9) RMN Website New Product Data sheets







## **WENCON MORE THAN ONLY A PRODUCT**



**Wencon UW Coating LV** is an excellent liquid coating for spray and brush applications. It is based on the high quality Wencon UW Coating but specifically developed for larger applications. The Wencon UW Coating LV is essentially identical to Wencon UW Coating. Its low viscosity allows it to be presented in cartridges.

### This is providing the following advantages:

- Spray application
- Injection
- Direct Hose/Brush application
- Smooth automatic mixing

### Suitable application areas, but not limited to:

- Scrubber overboard outlet / hull protection
- Sea water strainers
- Propulsion areas
- ICCP Systems
- Tank Corrosion Protection



To spray on larger areas the application takes less time in manhours which is extremely cost efficient. It can also be used for precise touch ups and as repair solution. With a special brush on a hose, just one man can reach larger areas without help from other applicators. With the brush applications it can be applied on dry or wet surfaces. Use the inject function for easy and effective casting of foundations. The mixing takes place in the static mixing nozzle which significant safe time in compare with manual mixing and the ensure an optimal mixing. When ready this mixing nozzle can be removed and the cartridge can be closed and stored for the next application. In normal room temperature it can easily be stored for at least 3 years. It fully cures on wet surfaces with a strong adhesion to all metal surfaces. It is compatible with GRE, composites and concrete. When applying it on Cathodic protection systems, they must be isolated/disconnected, and surfaces must be allowed to depolarize before application. The coverage rate is approximately 0,8m² per kg coat. Specific volume is 524cm³ per kg. The UW Coating is resistant to oil, water, saltwater, most diluted acids and alkalis, as well as a range of solvents. The Fire Resistance is tested according to IMO Resolution MSC 307(88)(2010 FTP Code) Annex1: Part 2 and 5. Salt Spray Tested according to ISO12944-9. Shelf Life is at 20°C (68°F): 3 years. Adhesion to steel is >7,5 N/mm² (ISO4624). Shear adhesion 31,1 N/mm² (ASTM D1002). Tensile Strength 37 N/mm². More information available on the Wencon Product Data Sheets. Contact the RMN Product specialist for extra info and possibilities of this specific and other Wencon Products.

Also available the application equipment for this Wencon UW LV cartridges





### **NEW WENCON CS HI-BUILD**



Wencon CS Hi-Build is a complete new Wencon product. It is a spray applied coating providing an extreme high build, abrasion, impact and chemical resistant layer. Small areas and touch-ups can be done with a brush.

### **Recommended Spray Equipment:**

- Proportioner pump 2K with remote mix manifold and preheaters
- Suitable 2K equipment mixing-block at the end of the hose to have very short "staying" in the equipment of the mixed product.
- The spray equipment should have a solvent flushing pump.
- Nozzle sizes 13 to 21, test for best result depending on temperature.
- Approximately pressure 180 250 bar depending on temperature and nozzle size.
- Heated hoses when distance between pump and application location exceed range of standard hose.

### Wencon Hi-Build Film Thickness

- Wencon CS Hi-Build can be applied in film thickness from 100µm to 1500µm per layer WTF/DTF.
- The product's film thickness remains consistent in both wet and dry conditions due to its volume-solid properties.

### Adhesion NEN-ISO 4624

- To Steel 7,6 N/mm². Pull off Type 40% -/Y, 60% Y/Z To Aluminium 7,2 N/mm². Pull off Type -Y 95%, Y/Z
- Io Aluminium 7,2 N/mm². Pull off Type -Y 95%, Y/Z 5%
- To Concrete 5,6 N/mm². Pull of Type 100% A (=integral strength of the concrete)

Coverage rate 0,76 kg/0,6ltr per m<sup>2</sup> at 600µm.

### NEW WENCON EXHAUST REPAIR COMPOUND

Wencon introduce the NEW Wencon Exhaust Compound, a significant advancement in the product line designed to address your repair needs more efficiently.

The NEW Wencon Exhaust Compound is produced with higher standards, which ensures greater control over manufacturing process. The carbon black is eliminated from the formulation prioritizing the safety of both users and the environment.

The product comes now in a cartridge with an extra 100 grams compared to the previous package. The new cartridge ensures convenience and protects the product within the cartridge, keeping it moist and usable for future repairs. As it comes in a cartridge the a[[;ication will be easier. Furthermore the metal splinters are replaced with special clay, enhancing its <a href="https://example.com/example.

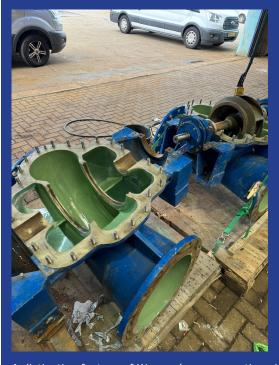
We believe that these improvements will not only enhance your repair experience but also contribute to a healthier and more sustainable future. Thank you for choosing Wencon as your trusted partner for your repairs and with also the focus on environment and health and safety.







### WENCON PROTECTS WITH TWO-LAYER SYSTEM



## **WENCON®**





A distinctive feature of Wencon's epoxy coatings is that they are offered in different colors, providing you with a unique advantage without compromising on product quality.

Altough these colors may vary, it's crucial to understand that they represent the same product with identical properties and

### Why do we choose for a two-layer application

Enhanced Coverage: Applying Wencon products in two layers significantly improves coverage. The color differentation between layers acts as a visual guide, reducing the chances of missed spots and ensuring a comprehensive protective coating. Thickness Precision: The use of different colors aids in better understanding the thickness of the applied solution. Not only ensures uniformity in application but also allows you to apply the same quantity consistently, optimizing the use of the product.

Wear Indication: Over time, continuous usage can wear out protective layers. The Wencon two-layer system serves as an early warning mechanism. As the next color starts to show, it signals the need for surface preparation and the application of an additional layer, preventing corrosion or dammage preactively.

### Two-Layer Advantage

specifications.

Whether you choose Wencon Coating, Wencon Hi-Temp or any other product from the Wencon Coating epoxy range, the application in two layers provides an added level of protection and precision.

### Remember, Different Colors, Same Protection

It's important to note that the different colors available for each product do not alter properties or specifications. The colors are simply a visual aid to help you achieve the best results with your epoxy solutions. For more detailled guidance on this two-layer protective system and other Wencon solutions, we encourage you to contact

### Pictures with example job carried out by **H&S Services B.V.**

The pictures shows a two-layer Wencon Ceramic Coating system applied by H&S Services B.V. on two large Bronze Jet Pumps. The pumps are first cleaned, shot blasted with glass pearl medium and degreased with Wencon Bio Cleaner. The Wencon Ceramic Coating in two-layer system is applied to provide a extreme smooth surface for a better flow, where the special properties of the Wencon Ceramics give and enhanced protection against wear.

Protect your expensive equipment with Wencon Products will enhance the lifetime and significanty reduce your CO2 emission in compare to renew the equipment. It contributes to a lower CO2 Footprint for a better and cleaner world. Beside this it will save money as well. Wencon cooperate with ReFlow Maritime to calculate your total CO2 savings. Think Circular!





### RMN CUSTOM LIGHT SOLUTIONS

### WELCOME IN THE WORLD OF LED LIGHT

Welcome to RMN! We are excited to introduce you to our specialized world of lighting. As your independent lighting specialist, we are committed to delivering high-quality lighting solutions that meets your specific needs.

#### Your partner in Lighting Success

At RMN we understand that lighting is more than just illuminating a space or area. It's an essential part of your daily environment, influencing both functionality and comfort. As your partner in lighting success we strive to provide solutions that not only meet your expectations but will exceed your expectations.

#### **Experts in Several Environments**

Whether it concerns offices, industrial facilities, public spaces, harsh marine environments or areas with a potential risk of explosion, such as ATEX Zone 1, 21, 2, 22 we have the expertise to help you. Our team of professionals is ready to guide you through every step of the process from the initial design to the final installation.

#### Independency and Ouality

As an independent lighting specialist, we are not restricted to a specific brand or supplier. This allows us to provide you with an objective advice and select the best solutions based on your requirements, needs and budget. We always strive for the highest quality and reliability, so that you can rely on the lighting products we supply. RMN has several European manufacturers in it's portfolio as distributor selected on experience, quality, warrantee, production and development in house in Europe. With using products manufactured in Europe the CO2 footprint on logistics is much lower in compare with other parts of the globe.

### Discover the RMN Experience

We invite you to discover the RMN experience for yourself. Contact us for a no-obligation or custom made advice for your lighting project. Together we can realize your vision and transform your space or area with high-quality lighting that meets all your requirements.

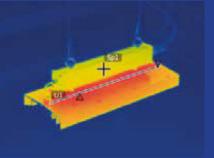






### **CUSTOM MADE WITH DOUBLEPOWER!! SKY LED**





Thermal heat management tested in real operation.

# UNIQUE LUMINAIRE MORE THAN JUST A HIGH BAY

Unbeatable return on investment and total cost of ownership.

A proven concept.

Custom Made LED Luminaires doublepower!! SKY

Did you know that with our trusted manufacturer doublepower!! we can offer custom made solutions.

This include special configurations for high halls, for extreme dusty environments en for production facilities such as steel factories with a very high ambient temperature.

In this example the entire steel factory is equiped with the doublepower!! SKY in TaMax execution.

### Thermal conductive materials for LED source heat removal

The material thickness is calculated even to a hundredth of a millimeter to have the best heat removal. Doublepower!! use for the SKY thermal-conductive materials specially designed for the specific LED light source. The technological procedure of the tape application guarantees 100% adhesion and therefore the quick and continuous removal of heat from the chips.

### Luminaire Heat management

The LED power source and LED drivers in doublepower!! SKY luminaires are placed in separate boxes to prevent them for thermally affecting one another. The individual components of the luminaire also serve to cool the chips and drivers. Thus, all components in doublepower!! SKY luminiares can operate with a high degree of comfort even at extremely high temperatures fo the surrounding environment.

The TaMax version is designed for ambient temperatures from  $-10^{\circ}\text{C}$  up to  $+65^{\circ}\text{C}$  and is tested even higher. For areas with a higher ambient temperature than  $+65^{\circ}\text{C}$  it is possible to install the luminaire in the warm area and the separate driver in a cooler environment.

### Optical system

For the doublepower!! SKY luminaires highly durable LED optics are used which not degrade over time. The transmittance of individuel optics is between 92% and 96%. In order to lower levels of glare a larger number of LED chips and larger surfaces for the optics are used. At the same time doublepower!! sink the optical system deeper into the body of the luminaire. Doublepower!! SKY luminaires can also be equipped with protective glass. Special glass is used with a low iron content and the best level of transmittance on the market at 92%.

#### important facts

The surfaces of the luminaire's body is designed to remove heat properly even in heavely dusty environments. It is not only taken into consideration the effective area, but also sufficient thermal bridges to make sure heat dissipation is as quick and effective as possible. Even the vertical ribbing located on the bottom side of the luminaire was designed and properly calculated to anticipate the collection of dust, moisture and other potential dirt.

Light output up to 180 lm/W.







### MIKO MARINE SEA CHEST BLANKING

### **Underwater Blanking Tools**

#### Miko Magnetic Plaster

Keeping water on the outside and oil on the inside. Miko Marine is well known for its versatile range of sea chest and pipe openings covering below the water surface. The Miko Magnetic Plaster which is qualified by DNV GL for sealing of sea chests, seawater inlets and outlets direct in the water. The seal is achieved by the force exerted by the water head and the magnetic force between the patch and the steel surface. The magnetic patches are designed for long term storage and are not demagnetized after use. The patches are available in many different dimension or in custom made dimensions. This Magnetic Miko Plasters can also be ordered as complete tanker kits to use as an alternative to dry-docking. It is world-wide used for in-water repair or survey of floating structures. When using a kit, no supplementary tools are required, all you need for installation comes with the kit.



Miko delivers Sea Chest Covers for any vessel, in any size and any depth. Hull curvature, sea chest grid arrangement and other data are taken into account for the design. The threaded rods are equipped with hooks at the bottom end that lock onto the sea chest grid and keep the cover firmly in place. By tightening the wing nuts, the rubber gasket is compressed slightly and an initial watertight seal against the hull is created. The Miko Sea Chest Cover is a First barrier.

### Miko Sea Chest Cofferdams

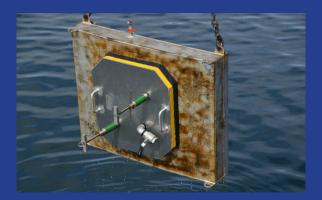
Custom-made Cofferdams for blanking of sea chests, pipe inlets and outlets and all kind of hull apertures below the waterline. They have a neutral buoyancy and kept firmly in place on the hull by utilizing Miko Anchor Magnets, each with an individual holding force up to 2.000 kg. Miko Cofferdams can be fitted with ROV compatible handle and fishtail fasteners for installation of the cofferdam by ROV. The Miko Sea Chest Cofferdams are the Second barrier. The combination offers a Double barrier sealing system.

### Miko WRV-8000 Pipe Plugs

Another option is the WRV-8000 Pipe Plug which is an expansion plug intendend for sealing pipe openings below the water surface. It is used for planned operations during maintenance, in-water survey or repair, as well as for emergency and salvage operations. This heave duty pipe plugs are available for round openings from DN14 up to DN600. The diameters up to DN75 have 1 sealing ring, above that up to DN300 the are equipped with 2 sealing rings and the larger dimension with 3 sealing rings. The crossbar prevents the plug from being sucked in. The through-bore and valve (from dimensions DN80) enable the pipe to be flooded before removing the plug.

Together with the Miko Marine Norway team we can offer you the right solution for your in water applications.













### **SEALITE SL-75 NOW WITH SATELLITE CONNECTIVITY**

#### Sealite SL-75 Self-contained Marine Lantern

Now available is the hugely popular SL-75 self-contained marine lantern with the option of Satellite connectivity. The SL-155 long range marine lantern is following next, with these models extending Sealite's offering to cover light ranges from 3-13NM.

Released in 2017 the SL-75 was the most innovative marine lantern of its time. Sealite's customers have appreciated its enhanced features of Bluetooth, GSM connectivity and GPS synchronisation with tilted solar modules for maximum sunlight capture. Sealite is now pleased to add satellite connectivity to its long list of product options, and connection to our Star2M portal for advanced monitoring and control.

The SL-155 is a versatile marine lantern available in 2.5-degree, 5-degree and 10-degree options. The SL-155 will be offered in six product configurations including stand-alone models, coupled with two power supply options, or supplied with external power supplies.

These models join a long list of Sealite's satellite enabled marine products including; the SL-C310, SL-C510, SL-510-SA, the Universal Gateway, and the Remote Monitoring Unit.

#### The 3-5NM + Solar Marine Lantern SL-75

The SL-75 is a next-generation solar marine lantern with up to 5NM visible range. The lantern incorporates dual high-performance solar panels for maximum sunlight capture and utilises the latest Bluetooth® technology for convenient configuration and maintenance.

This model is supported by the SealitePro® mobile application, designed to allow for complete programming (via Bluetooth®) of the SL-75 lantern. An easy to use interface and with intelligence built-in, the App enables access to read and program the lantern functions from a mobile device up to 50 metres away. This innovation reduces maintenance times, improves productivity, and reduces safety risks by minimising the need to climb onto a buoy or structure.

#### Satellite connectivity as an option is now available!

The SL-75 is now Satcom enabled. An optional integrated Iridium® Satellite module enables two-way monitoring and control using the Iridium® Low Earth Orbit satellite network. This feature gives the user full visibility, control and reporting of their assets via the Star2M portal.

Optional GPS synchronisation allows two or more units set to the same flash character to flash in unison, improving visual recognition of boundaries or marine channels. Optional GSM is also available.

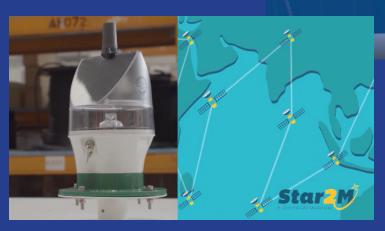
The Sealite SL-75 is available with a 17.2Ah, a 21.5Ah or a 28.8Ah battery capacity.

The available colors are, Red, Green, White, Yellow and Blue.

The horizontal light output is 360 degrees. The Vertical Divergence (Lens options) is 7 degree as standard or 5 degree (optional). The lantern has 310 plus custom flash characters and multiple intensity settings. The LED life expectancy is >100.000 hours. To offer for your application the right electrical characteristics we add the wanted lantern location and other parameters into the Sealite Solar Calculator.







All Sealite's Marine Lanterns Signal Colors are compliant to IALAE-200-1.

The Sealite SL-75 power supply is a high-grade NiMH battery with a nominal voltage of 3.6V.

Multiple optional products are available for Sealite Marine Lanterns such as IALA Top Marks, Top Mark Stands, Mounting Cages etc.





### **NEW RMN PRODUCT DATA SHEETS**

### RMN is updating the product data sheets

Perhaps some has already noticed that product data sheets looks a little different in compare with the previous. We are currently busy with renewing many product data sheets. Not only a new fresh look but what is important we remove obsolete products from the current data sheets. With a changing world where there is a focus on sustainability and reduction of CO2 emissions many products are changing. This can be by using other raw materials, using other manufacturing methods or producing where the biggest demand of the products is to reduce transportation movements. Due to new EU regulations some products may not be longer produced and stock has to be sold out in a certain period of time. One of the examples is the ban of production of fluorescent light sources, which may no longer be produced by EU law since end of August last year. Manufacturers of light sourves and light fixtures are already years ahead on this regulations and changed their entire range of products over the years in to more energy saving LED light sources. But there are also other steps been taken. For example in the industry of grinding and cutting where Pferd as manufacturer has an complete new range of grinding product which offers significantly less dust, less vibration and less sound which is a major improvement for everyone working daily with this products. Another example is manufacturer Bals, introducing the new range INNOLINQ CEE plugs, connectors and receptacles. What INNOLINQ so special makes is that the product is 100% LEAD-FREE. They are with that ahead on upcomming regulations. With lighting manufacturers RMN already choose for European leading manufacturers. With this different manufacturers we can offer the latest technique, high efficiency, high quality and short transport movements.

Another important fact with using LED light is SVM (stroboscopic) effect visibility measures and PstLM (perception of momentary light modulation). What does this mean?

#### SVM (stroboscopic) effect visibility measures

This can occur when non-compliant light sources illuminate a moving object. This can lead to dangerous situations, because they reduce the perceptibility of moving parts.

For example rotating machine parts can be experienced as not running.

Bott M (norception of momentary light modulation):

This refers to visible flickering, for example on screens.

The flicker may cause discomfort, causing fatique and can cause headaches.

This is easy to observe by placing the camera of the Smartphone in video position and hold it in front of the light source. If the image flickers, the light source doesn't comply to the PstLM standards and it can cause complaints as described.

Standards from 09/2021: SVM ≤ 0,9\* /PstLM ≤ 1
Standards from 09/2024: SVM < 0.4\* /PstLM < 1







## **ONE STOP SHOP TECHNICAL WHOLESALER**

## FOR A DURABLE AND A GREEN FUTURE



Repair Management Nederland B.V.

More management less firefighting