

ROCOL®

WIRE SHIELD™ BIOGEN ROV

HIGH PERFORMANCE BIODEGRADABLE LUBRICANT

- Armoured Umbilical Cables
- Wire Rope Cables



READILY
BIODEGRADABLE



LC₅₀ ACARTIA TONSA
202.60mg/l



NO COMPROMISE
ENVIRONMENT • OPERATOR • CABLES

A HISTORY OF EXCELLENCE

ROCOL® has been providing engineers with high performance lubrication solutions for more than 130 years. During that time some of the world's leading companies, operating in the harshest of conditions, have benefited from the knowledge and expertise of **ROCOL**.

THE IMPORTANCE OF CABLE LUBRICATION

The physical demands placed on umbilicals and wire ropes are often underestimated. Cables are required to safely manoeuvre valuable loads weighing of up to many thousands of Kilograms whilst:

- Resisting the most corrosive of environments
- Shielding against abrasion
- Being flexible enough to bend around sheaves, rollers and drums
- Undergoing multiple modifications

The integrity of all cables must be protected by lubrication as part of the **Planned Maintenance System** (PMS).



It has never been more important to choose the most environmentally acceptable lubricants.

Over 10% of oil input into marine waters is estimated to originate from lubricants⁽¹⁾. Additionally, worldwide clean up and damage costs are estimated to be greater than £200m⁽²⁾.

The integrity of the marine environment **must** be protected by careful management of actions at sea and on the coast. International standards such as ISO 14001 and ISO 14031 encourage organisations to utilise "performance indicators" in an effort to protect the delicate marine environment. When choosing the correct lubricant to protect cables, consideration of its environmental impact is **vital**.

EVOLUTION OF LUBRICATION TECHNOLOGY

Three years of research by industry leading chemists has lead to the development of **WIRESHIELD™ Biogen ROV**. The lubricant has been tested to some of the most stringent environmental standards, demonstrating minimal environmental impact.

A **NO COMPROMISE** approach to performance whilst striving to limit environmental impact has resulted in this highly innovative cable lubricant.

WIRESHIELD Biogen ROV has been formulated to the following criteria:

• Maximum penetration	Ensuring protection at the cable core
• Excellent corrosion protection	Preventing premature failure
• Extreme wash-off resistance	Guaranteeing protection when wet
• High fling-off resistance	Minimising slip hazards whilst providing long term protection
• Friction reduction	Reducing abrasion and wear
• Simple & safe application	Non-hazardous to operator
• Biodegradable and low eco-toxicity	Minimising environmental impact
• High level of pumpability	Easy application with automatic lubricators
• High temperature stability	Ensuring protection at high temperatures
• Stable in the presence of salt water	Protection does not fail when exposed to sea water

(1) Oil in the Sea Study (NRC, 2003)

(2) Worldwide analysis of in-port vessel operational lubricant discharges and leaks (Etkin, 2010)



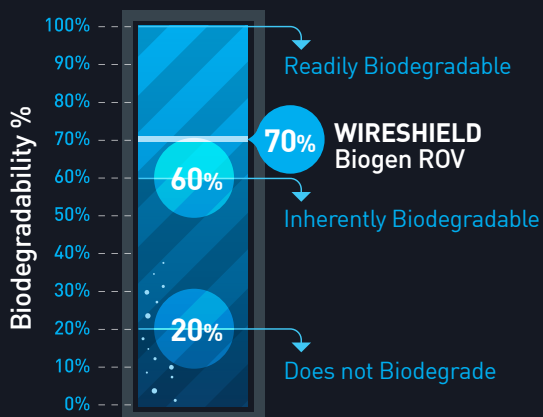
INDEPENDENTLY TESTED PERFORMANCE

BIODEGRADABILITY

Test: OECD 306

Result: Readily Biodegradable (70%)

Biodegradability is a measure of how quickly a substance is broken down into harmless constituents. The concentration of **WIRESHIELD™ Biogen ROV** in sea water was tested after 28 days and awarded the top classification of biodegradability.



INDEPENDENTLY TESTED



Acartia Tonsa

ECO-TOXICITY

Test: 48hr LC₅₀ Acartia Tonsa

Result: 202.60mg/l

WIRESHIELD Biogen ROV was designed and tested to demonstrate that its impact on marine life is minimised.



INDEPENDENTLY TESTED

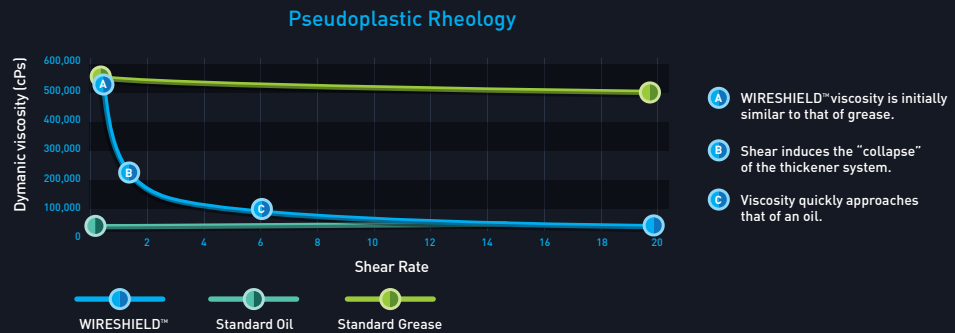
PSEUDOPLASTIC RHEOLOGY

Shear or agitation causes a reduction in the dynamic viscosity of **WIRESHIELD™ Biogen ROV**:

- Allowing maximum penetration into umbilicals and wire ropes.
- Increasing pumpability during application, minimising blockages.

While at rest the lubricant behaves like a grease:

- Optimising wash-off and fling-off resistance.



CORROSION RESISTANCE

Test: ASTM B117

Result: Zero galvanic reaction after 1000 hours

Identical sections of armoured umbilical were exposed to a salt spray fog for 1000 hours. Armoured umbilicals are galvanised, providing limited protection from corrosion through the formation of a white substance on the outside of the umbilical. If a lubricant can prevent the galvanic formation, it shows excellent anti-corrosion protection.

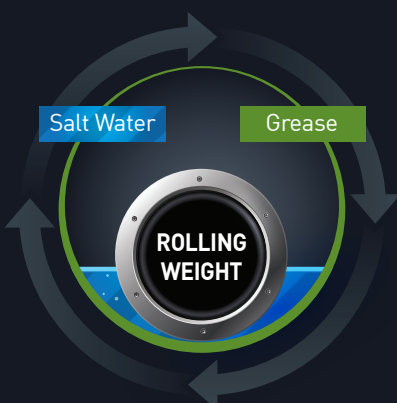


SALT WATER & SHEAR STABILITY

Test: Modified ASTM D-1831

Result: Shear stable in the presence of salt water

A vessel containing **WIRESHIELD Biogen ROV**, salt water and a rolling weight was rotated at 165 RPM for several hours. These conditions cause high degradation in lubricants, but **WIRESHIELD Biogen ROV** passed the test with excellent results, showing little sign of degradation.



WIRESHIELD Biogen ROV

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Change in Grease Consistency



ROCOL®

WIRE SHIELD™ **BIOGEN ROV**

APPLICATION

Methods of cable lubrication range from traditional techniques such as brushing and swabbing to the use of performance equipment.

WIRESHIELD Biogen ROV can be applied using whichever method is most convenient, but in order to maximise efficiency, **ROCOL** recommends CoreLube or other automatic delivery systems.

The use of **WIRESHIELD Biogen ROV** with an automatic delivery system:

- Forces lubricant into the wires and strands of the cable
- Prevents build up of excess lubricant
- Offers cost savings due to increased lubrication speed
- Is suitable for use on a range of umbilical and wire rope diameters
- Utilises pseudoplastic rheology ensuring that **WIRESHIELD Biogen ROV** is easy to pump, minimising blockages



HEALTH & SAFETY

WIRESHIELD Biogen ROV is not classed as hazardous, giving peace of mind to operators during its application and use. The pseudoplastic rheology significantly reduces fling-off and drip-off ensuring decks and floors are as clean and slip-free as possible.

Buy **WIRESHIELD Biogen ROV** now

Pail		Drum	
Part Code:	20044	Part Code:	20049
Size:	18kg	Size:	160kg

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