

## **TUFF COAT M**

MARINE-GRADE WIRE ROPE LUBRICANT

Royal Purple's Tuff Coat M contains specially formulated synthetic lubricants, penetrants and synthetic additives, which significantly extend the service life of wire ropes, armored cables and ROV umbilicals over a wide range of temperatures and working conditions common to the marine industry. Tuff Coat M has state-of-the-art corrosion inhibitors, exceptional penetrating and wetting ability and a strong adhesive film to keep the lubricant in place. When properly applied, Tuff Coat M penetrates wire rope and cables, between each strand, unlike asphaltic or other surface coatings. By filing all spaces between wire strands, Tuff Coat M stops ingress of water and other contaminates, preventing corrosion and abrasive damage. The incredible anti-wear and extreme pressure protection provided also prevents internal wear of the wire ropes and cables.

Royal Purple's Tuff Coat M Grease gains its incredible performance from Synslide®. Synslide® is Royal Purple's unique, proprietary, noncorrosive EP additive technology.

Synthetic lubricating oils, top-tier thickeners, and advanced additive chemistry enable Royal Purple to make superior lubricants, but it is Synslide® additive technology that gives Royal Purple's EP (extreme pressure) oils and greases their amazing performance advantages. Synslide® additive technology provides maximum protection under boundary lubrication conditions typically caused by heavy loads, slow operating speeds, and shock load conditions. This tenacious, slippery film significantly improves lubrication and reduces wear by increasing the oil film thickness and toughness, which helps to prevent metal-to-metal contact in gears and bearings.

Tuff Coat M protects all metals from corrosion and chemical attack, and is safe to use on ferrous (iron, steel, etc) metals and yellow metal (brass, bronze copper) alloys. The formulation contains no lubricating solids that can build-up and reduce function.

### **PERFORMANCE ADVANTAGES**

#### **OUTSTANDING CORROSION PROTECTION -**

State-of-the-art synthetic corrosion inhibitors protect against rust and chemical attack in wet operating environments, even severe saltwater applications

**SUPERIOR WEAR PROTECTION** - Synslide® additive technology imbues Tuff Coat M with unmatched lubricant film strength, preventing metal-to-metal contact

**EXCEPTIONAL WATER RESISTANCE** - Will not mix with water and has great resistance to water wash-off

#### **EXCELLENT LOW TEMPERATURE FLUIDITY -**

Does not harden or crack, even at below freezing operating temperatures

**HIGH TACKINESS AND ADHESION** - Tenacious lubricating film stays in place, providing maximum protection



# **TUFF COAT M**

MARINE-GRADE WIRE ROPE LUBRICANT

## **TECHNICAL DATA**

Property	: Test Method :	
NLGI Grade	•	1.5
Thickener Type		Al Complex
Worked Penetration	ASTM D217	306
Viscosity @ 40°C, cSt	ASTM D445	2000
Viscosity @ 100°C, cSt	ASTM D445	105
<b>Dropping Point,</b> °C (°F)	ASTM D2265	261 (502)
Oil Separation Test, %	ASTM D942	<5.0
Rust Protection	ASTM D1743	PASS
Copper Corrosion	ASTM D4084	1B
<b>4-Ball EP Test,</b> Weld Load, kg	ASTM D2596	315
4-Ball EP Test, Load Wear Index	ASTM D2596	57
Timken EP Test, OK Load, lb	ASTM D2509	30