

Overview ► BioLube WRL XT is a readily biodegradable, zinc-free wire rope lube formulated from renewable basestocks. The high lubricity base oil of BioLube WRLXT is paired with environmentally acceptable additive technologies and tackifier to deliver optimum wear protection, corrosion protection, and enhanced metal adhesion. BioLube WRL DT is a tackifier-free version of the product that cures to a “dry to touch” film within 24 hours.



**Wear Protection:** Abrasive wear occurs inside and outside of wire ropes. Individual strands inside the rope move and rub against one another during normal loading creating internal 2-body abrasive wear. External rope surfaces accumulate dirt and contaminants from sheaves and drums during the spooling process causing 3-body abrasive wear eroding outer wires and strands, reducing rope diameter and resulting in core failure and internal wire breakage. BioLube WRL XT penetrates into wire ropes providing optimal metal wetting and friction reduction, while the superior solvency of the natural ester base oils cleans external surfaces to remove contaminants and dirt.

**Corrosion & Environmental Protection:** Rope corrosion and oxidation is caused by humidity, fumes, salt air or brines, acids, sulfur and gases which shorten rope life due to metal loss and pitting. BioLube WRL XT provides superior corrosion management, reducing the accelerated corrosion tied to elevated operating temperatures, delivering an optimal balance between base oil and additive system performance to minimize environmental impact.

BioLube WRL XT is formulated featuring our proprietary **eSyn™** technology.

## Typical Properties ▼

Property	ASTM Test Method	WRL XT	WRL DT
Product Code		BL7110046	BL7110000
ISO Grade		46	46
Specific Gravity	ASTM D1298	0.91	0.91
Viscosity @40°C, cSt	ASTM D445	46	46
Viscosity @100°C, cSt	ASTM D445	10	10
Viscosity Index (VI)	ASTM D2270	>200	>200
Pour Point °F (°C)	ASTM D97	-10 (-23)	-22 (-30)
Flash Point °F (°C)	ASTM D92	>500 (260)	>400 (204)
Copper Corrosion	ASTM D4048	1A	1A
Rust Test, A & B	ASTM D665	Pass	Pass
4 Ball Wear, Scar, mm	ASTM D4172	<0.50	<0.50
Dielectric Breakdown Voltage, kV	ASTM D877	>45	>45

Readily Biodegradable (meaning>60%)		Pass	Pass
Biodegradability, %	OECD 301B	75	75
Minimally Toxic		Pass	Pass
Algae (EC 50), 72 hr, mg/L	OECD 201	>32,000	>32,000
Daphnia (EC 50), 48 hr, mg/L	OECD 202	>10,000	>10,000
Fish (LC 50), 96 hr, mg/L	OECD 203	>40,000	>40,000
Not Bioaccumulative (Calculated value as per EPA standard)		Pass	Pass
Bio-based Content, %	ASTM D6866	>86	>86

Key Attributes / Approvals ▶



- Classified as Environmentally Acceptable Lubricants (EAL's) as per the EPA's 2013 U.S. Vessel General Permit (VGP)

See the Safety Data Sheet (SDS) for emergency, proper handling and disposal information.

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