

Wireline

Phillips 66[®] Wireline is a high-quality, tacky, viscous, high viscosity index lubricant specifically developed for lubrication and sealing of braided wirelines and cables used in oil and gas wells for cased-hole logging, pipe recovery service, tubing conveyed perforating, production logging and reservoir analysis.

Wireline is applied in once-through operation. It maintains a seal around the moving wireline in high-pressure environments to prevent the escape of wellbore corrosive fluids and gases between the wireline outer diameter and the flow tube inner diameter. It provides excellent protection against corrosion, including saltwater corrosion, as well as rust preventive properties for storage of logging cables. It also has excellent low-temperature fluidity to prevent wireline seizure and breakage in cold weather.

Wireline passes the visual "no sheen" requirements of the U.S. EPA/U.S. Coast Guard Static Sheen Test (Federal Register Vol. 58, No.41). It also meets the criteria of OECD Test Method 302D for classification as "inherently biodegradable."

Applications

- Braided wirelines and cables used in oil & gas wells
- Cased-hole logging operations
- Pipe recovery service
- Tubing-conveyed perforating
- Production logging
- Reservoir analysis

Note: This product is not designed for and should not be used in wire rope applications.

Features/Benefits

- Clear color
- · Easy to apply in warm and cold weather
- Tacky; stays put and does not drip
- Excellent corrosion protection
- Excellent low-temperature fluidity
- High viscosity index
- · Easily pumpable in wireline injection units
- Inherently biodegradable

High-Quality Wireline Lubricant & Sealant; Inherently Biodegradable



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Wireline

Typical Properties					
ISO Grade	46	68	220	460	680
Specific Gravity @ 60°F	0.866	0.865	0.863	0.862	0.860
Density, lbs/gal @ 60°F	7.22	7.21	7.19	7.17	7.16
Color, ASTM D1500	0.5	0.5	0.5	0.5	0.5
Flash Point (COC), °C (°F)	172 (342)	225 (437)	225 (437)	225 (437)	225 (437)
Pour Point, °C (°F)	-52 (-62)	-39 (-38)	-39 (-38)	-36 (-33)	-36 (-33)
Viscosity					
cSt @ 40°C	46.0	68.0	220	460	680
cSt @ 100°C	9.2	10	28	55	76
Viscosity Index	187	131	164	187	193
Rust Test, ASTM D665 B	Pass	Pass	Pass	Pass	Pass
Usable Temperature Range					
C°	-40 to -15	-34 to -7	-26 to 4	-18 to 16	-12 to 24
°F	-40 to 5	-30 to 20	-15 to 40	0 to 60	10 to 75
ISO Grade	1500	5000	7500	10000	12000
Specific Gravity @ 60°F	0.859	0.855	0.855	0.853	0.852
Density, Ibs/gal @ 60°F	7.15	7.12	7.12	7.10	7.10
Color, ASTM D1500	0.5	0.5	0.5	0.5	0.5
Flash Point (COC), °C (°F)	225 (437)	225 (437)	225 (437)	225 (437)	225 (437)
Pour Point, °C (°F)	-36 (-33)	-30 (-22)	-27 (-17)	-24 (-11)	-24 (-11)
Viscosity					
cSt @ 40°C	1,500	5,000	7,500	9,500	12,000
cSt @ 100°C	154	500	660	850	990
Viscosity Index	218	283	286	303	303
Rust Test, ASTM D665 B	Pass	Pass	Pass	Pass	Pass
Usable Temperature Range					
C°	-4 to 38	13 to 38+	18 to 38+	24 to 38+	29 to 38+
°F	25 to 100	55 to 100+	65 to 100+	75 to 100+	85 to 100+

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <u>http://www.phillips66.com/EN/products/Pages/MSDS.aspx</u>.

Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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