



Koolkut® SCF

Phillips 66® Koolkut® SCF is a heavy-duty, active cutting oil developed for deep-hole drilling or gun drilling of cast iron, steel, high-speed steel, and other alloys. It is specially formulated with high-quality base oils and fortified with oiliness additives and sulfur-containing extreme-pressure additives that provide reduced friction and good anti-weld properties at the chip-tool interface, resulting in extended cutting tool life and good surface finishes on the machined parts.

Gun drilling uses a tungsten-carbide cutting tool to produce accurate, deep-hole configurations. The length of a gun-drilled hole can be up to 250 times its diameter. Gun drilling also is used to drill difficult and hard materials up to 370 Brinell hardness that cannot be economically machined with other types of drilling. Koolkut SCF is ideal for this type of drilling.

Koolkut SCF also is recommended for honing cylinders such as engine cylinders, clutch slave cylinders and brake wheel/master cylinders.

Koolkut SCF can cause staining of non-ferrous metals such as copper and copper alloys and is not recommended for machining non-ferrous metals.

Applications

- Boring
- Broaching
- Deep hole drilling
- Heavy-duty machining of cast iron, steel, and high-speed steel alloys
- Honing
- Milling
- Tapping
- Threading

Features/Benefits

- Excellent performance in most difficult machining operations
- Reduced friction
- Good anti-weld properties
- Helps extend cutting tool life
- Good surface finish
- Permits clear view of the workpiece

Heavy-Duty Cutting Oil for Gun Drilling & Cylinder Honing





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Typical Properties	
ISO Grade	15
Specific Gravity @ 60°F	0.884
Density, lbs/gal @ 60°F	7.36
Color, ASTM D1500	4.5
Flash Point (COC), °C (°F)	182 (360)
Pour Point, °C (°F)	-18 (0)
Viscosity	
cSt @ 40°C	14.4
cSt @ 100°C	3.3
SUS @ 100°F	79.7
SUS @ 210°F	37.4
Viscosity Index	95
Copper Corrosion, ASTM D130	1b
Chlorine, wt %	3.2
Fatty Oil, wt %	10.0
Sulfur, Total, wt %	2.1
Sulfur, Active, wt %	1.86

Health & Safety Information

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

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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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