



HIGH FILM STRENGTH LUBRICANTS

The **RichardsApex High Film Strength Lubricants** are oils of various viscosities containing extreme pressure, anti-wear, and other lubricity additives. They are generally used in the "as received" form for all drawing, forming, and perforating of stainless and nickel alloy steels. For forming, cutting, and drawing of carbon steels and some ferrous alloys, this series becomes the important base additive that gives oil lubricants the film strength and lubricity required to promote fine finishes and protection for the tools. No other group of products in the **RichardsApex** Line will do more jobs on such a variety of metalworking operations. A partial listing of the many products available is provided.

USED IN NEAT FORM

- For bright drawing stainless wire
- For bright drawing stainless tubing
- For stamping and deep drawing of stainless and nickel alloys
- For elimination of copper coating in the cold heading of stainless
- As an outside die box lubricant in the drawing of fine stainless wire
- For drawing of stainless bars and hexes without lime
- For stainless and alloy tube bending
- For perforating stainless steel

AS AN ADDITIVE

- For cutting carbon steels
- For cutting stainless and alloy steels
- To prevent pick-up and galling on forming and bending dies
- For multiple die drawing of carbon and alloy steels
- For rolling of stainless and alloy rod and wire
- For stainless and alloy spring forming

Your **RichardsApex** field Representative can offer specific product recommendations for your manufacturing process.

PRODUCT DATA



www.RichardsApex.com

Phone: 215-487-1100

TYPICAL SPECIFICATIONS

<u>RichardsApex Designation</u>	<u>VIS SUS at 100° F (38°C)</u>	<u>Wt./Gal.(lbs.)</u>	<u>Flash Point °F</u>
201	8,500	9.87	None
209	105,000	10.5	None
209WX***	60,000	10.5	None
215	800	8.9	350
221WX***	2,700	10.63	None
226	43,000	10.55	None
227WX***	25,880	10.61	400
236WX***	50,000	10.08	350
243*	4,500	9.92	None
244*	90	10.08	None
260WX** ***	Barely Pourable	9.81	None
262WX** ***	Barely Pourable	9.44	None
NAL-40	520	8.72	350
TD-T200**	Barely Pourable	9.3	None
TD-T500**	Barely Pourable	8.0	500

*The single asterisk denotes products that contain special corrosion inhibitors that will **minimize** oxidation where the products may be used on carbon steels under extreme humidity or other moisture conditions.

**The double asterisk denotes products containing polymer additives for providing the highest possible film strength for stainless and alloy tube and rod drawing.

***The triple asterisk, the **WX** product designation, indicates that emulsifiers have been incorporated into the compound to improve the ease of soil removal in subsequent aqueous cleaning processes.

Under more severe conditions, or with particularly corrosive steels, added protection against oxidation is available with the use of **RichardsApex AR-200**.

In addition to the products listed above, variations of this series of products pre-mixed and ready-to-use are available where in-plant blending is not desirable. These include a variety of specialty products where this series is blended with light viscosity paraffin-based oils and kerosene where special brightly polished surfaces are required.