



Product Bulletin

GULF STAINLESS METAL 13X, 13B, & 13B Additive

Gulf Stainless Metal 13X and **13B** are mineral type roll oils used primarily to lubricate and cool the rolls and strip in the cold rolling of ferrous and non-ferrous metals. These roll oils or roll coolants are specially compounded to meet a variety of conditions and applications required in the cold rolling of stainless steel, copper, brass, titanium, and aluminum.

FEATURES AND BENEFITS:

Gulf Stainless Metal Oils are formulated with premium quality base oils and fortified with select additives to provide the special characteristics necessary for cold rolling a range of metal alloys. The special additives reduce friction between the rolls, minimize roll pickup, allow for greater rolling speeds, and can improve the luster and finish of the metal being rolled.

Gulf Stainless Metal 13X is a blend of premium quality, solvent processed, hydrotreated paraffinic base oils and choice additives developed for use in cold rolling stainless steel and other metals requiring excellent finish and very high luster. It has excellent burn-off characteristics and leaves no stains during annealing. This product is double treated with friction reducing agents to minimize friction between the rolls and the metal, as well as enhance strip finish for sensitive applications requiring less than a 2-3 micron finish.

Gulf Stainless Metal 13B is fortified with an effective ashless anti-wear additive, providing increased bearing life on Sendzimir, and other milling applications, where the rolling oil is used as a mill roll bearing lubricant. The premium wetting and load-carrying additives provide outstanding protection in rolling applications. Additionally, this product is formulated with a low carbon-residue base oil, for applications in which degreasing does not take place before the annealing process.

Gulf Stainless Metal 13B Additive is an excellent way to extend the operational life of **Gulf Stainless Metal 13B** by rejuvenating the additives in the rolling oil. When used in conjunction with an oil analysis program, this product can provide a significant cost savings. A rule of thumb for application of this additive is to use the product when oil analysis shows phosphorus levels falling below 70 ppm.

APPLICATIONS:

Equipment manufacturer recommendations and conventional guides to cold rolling lubricant selection should be followed to determine the best Gulf Stainless Metal Oils for a specific application.



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AVAILABILITY:

Gulf Stainless Metal 13X, 13B, and 13B Additive are available throughout Gulf's marketing area. Your Gulf representative or Gulf jobber can provide specific information. Need additional information? Call Gulf @ 1-800-566-GULF (4853).

Gulf Stainless Metals - Typical Properties

		13X	13B	13B Additive
Product Code	Test Method	335203	335201	333101
Viscosity, cSt @ 40°C	ASTM D-445	14.0	10.3	18.1
Viscosity, SUS @ 100°F	ASTM D-2161	74	62	90
Color (max)	ASTM D-1500		1.0	2.0
Appearance	Observed	Amber Color	Clear @ >75°F	Clear @ ≥ 80°F
Flash Point, COC, °F (°C) (min)	ASTM D-92	345 (172)	340 (170)	340 (170)
Chlorine Content, ppm		0	0	0
Phosphorus Content, ppm			70	20,000
Sulfur Content, ppm		0	0	0
API Gravity, 60°F	ASTM D-1298	30.6	35.0	33.0
Density, lbs/gal (g/L)	Calculated	7.26 (870)	7.09 (850)	7.18 (860)