



# Oxylub®-401

## glass forging lubricant for titanium alloys

### Description

A water-based, protective and lubricating glass coating formulated to protect from hydrogen penetration and lubricate titanium alloys during hot forging processes.

### Performance Characteristics

- effective temperature range 1700-1875° F (927-1024° C)
- provides excellent lubrication during forging and extrusion
- retards hydrogen penetration and protection against alpha case development
- exceptional insulating properties and thermal stability
- demonstrates heat retention properties for improved performance in hot working operations
- outstanding coverage & performance in one coat
- demonstrates exceptional green strength upon proper drying to withstand cracking, chipping, and peeling
- provides excellent rheological properties for dipping and spraying applications
- coating can be diluted with water to obtain desired spray viscosity – do not over-thin coating

### Recommendations for Use

- thoroughly suspend and mix before use
- metal surfaces must be free of dirt, oil, grease, metal oxides, and other materials
- coating thickness depends on the time and temperature of exposure (generally, the higher the temperature and longer exposure, the thicker the coating should be applied)
- a wet film thickness of  $5 \pm 2$  mils should be optimal
- ensure bottom coat is thoroughly dried when applying multiple coats
- water-based coatings need ample time to completely dry before entering furnace (can be applied over preheated substrate to accelerate drying time)

### Typical Properties

pH	6.0-7.0
% Solids	52.0-56.0
Vehicle	Water
Viscosity (@ 25°C) as Supplied (cP)	1,200-1,400
Weight/Gallon (lb/gal)	11.85 $\pm$ 0.25
Specific Gravity	1.39-1.45

Color	White
Shelf Life	~1 year

## Product Safety

Before handling the materials listed in this bulletin, read and understand the product MSDS (Material Safety Data Sheet) for additional information on personal protective equipment and for safety, health, and environmental information.

No chemical should be used as or in a food, drug, medical device, or cosmetic, or in a product or process in which it may contact a food, drug, medical device, or cosmetic until the user has determined the suitability and legality of the use. Since government regulations and use conditions are subject to change, it is the user's responsibility to determine that this information is appropriate and suitable under current, applicable laws and regulations.

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## Storage and Handling

Oxylub®-401 should be stored indoors in the original unopened and undamaged container, in a dry place at a temperature not exceeding (40° C). Exposure to direct sunlight should be avoided.

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