

DIE CASTING LUBRICANTS

DIE SLICK® 4513 LUBRICANT

APPLICATION SHEET

BENEFITS

- » Forms a tough thermodynamically activated die film that resists soldering on hot die areas while not building on cooler die areas.
- » Castings are extremely bright and clean
- » Does not cause paint or coating problems
- » Exhibits excellent emulsion stability when diluted
- » Minimal smoke and no staining

APPLICATIONS

Synthetic lubricant which contains a blend of reactive polymeric lubricants. The formulation incorporates Smart Polymer technology and high molecular weight alkane cross-linking agent. Smart Polymer technology is a thermodynamically reactive polymer blend which forms a tough barrier on hot areas of the die while lightly coating cooler less demanding areas. This unique property translates to reduced solder, enhanced release and wetting characteristics while producing bright and clean castings. It contains 10% by weight active material and no low molecular weight oil components.

STORAGE AND HANDLING

Please see SDS for more detailed information.

PROPERTIES

PROPERTY	TYPICAL VALUE
Appearance / Colour	White liquid
Odor	Mild
Flash point (COC)	N/A
Density (kg/m ³)	>994
pH	8.0 - 9.0

ALLOY	DILUTION RATIO*
ALUMINUM	20-100 : 1
ZINC	20-100 : 1
MAGNESIUM	50-100 : 1

* The dilution ratios are recommendations based on G.W. Smith & Sons experience in the field. Each Die Casting facility is unique and each operator should evaluate the recommended starting ratio based on his / her experience.

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DIE CASTING LUBRICANTS

DIE SLICK® 4514 LUBRICANT APPLICATION SHEET

BENEFITS

- » Forms a tough thermodynamically activated die film that resists soldering on hot die areas while not building on cooler die areas
- » Castings are extremely bright and clean
- » Does not cause paint or coating problems
- » Excellent emulsion stability
- » Minimal smoke and no staining

APPLICATIONS

DIE SLICK® 4514 is a synthetic lubricant which contains a blend of reactive polymeric lubricants. The formulation incorporates Smart Polymer™ technology and high molecular weight alkane cross-linking agent. Smart Polymer™ technology is a thermodynamically reactive polymer blend which forms a tough barrier on hot areas of the die while lightly coating cooler less demanding areas. This unique property translates to reduced solder, enhanced release and wetting characteristics while producing bright and clean castings.

PACKAGING AND STORAGE

DIE SLICK® 4514 is available in drums, totes, or pails. All containers are filled to volume by weight. This product has a shelf life of 12 months. Like most chemicals, it should be stored in a tightly sealed container, out of direct sunlight in temperatures between 40°F (4°C) and 110°F (43°C). To enhance process compatibility, use Quaker metalworking fluids and cleaners. Consult your Quaker representative.

ALLOY	DILUTION RATIO*	COMMENTS
ALUMINUM	80:1	Ratios as high as 140:1 are common.
ZINC	80:1	Ratios as high as 140:1 are common.
MAGNESIUM	80:1	Ratios as high as 140:1 are common.

* The dilution ratios are recommendations based on Quaker's experience in the field. Each Die Casting facility is unique and each operator should evaluate the recommended starting ratio based on experience.

PROPERTIES

PROPERTIES	TYPICAL VALUES
Appearance	White liquid
Odor	Mild
Flash Point	Not Applicable
Density: (lbs/gal)	8.11
ph	8.5 - 9.5

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DIE CASTING LUBRICANTS

DIE SLICK® 4515 LUBRICANT

APPLICATION SHEET

BENEFITS

- » Forms a tough thermodynamically activated die film that resists soldering on hot die areas while not building on cooler die areas.
- » Castings are extremely bright and clean
- » Does not cause paint or coating problems
- » Exhibits excellent emulsion stability when diluted
- » Minimal smoke and no staining

APPLICATIONS

Synthetic lubricant which contains a blend of reactive polymeric lubricants. The formulation incorporates Smart Polymer technology and high molecular weight alkane cross-linking agent. Smart Polymer technology is a thermodynamically reactive polymer blend which forms a tough barrier on hot areas of the die while lightly coating cooler less demanding areas. This unique property translates to reduced solder, enhanced release and wetting characteristics while producing bright and clean castings. It contains 20% by weight active material and no low molecular weight oil components.

STORAGE AND HANDLING

Please see SDS for more detailed information.

PROPERTIES

PROPERTY	TYPICAL VALUE
Appearance / Colour	White liquid
Odor	Mild
Flash point (COC)	N/A
Density (kg/m ³)	984
pH	8.0 - 9.0

ALLOY	DILUTION RATIO*
ALUMINUM	40-110 : 1
ZINC	40-110 : 1
MAGNESIUM	70-120 : 1

* The dilution ratios are recommendations based on G.W. Smith & Sons experience in the field. Each Die Casting facility is unique and each operator should evaluate the recommended starting ratio based on his / her experience.

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DIE CASTING LUBRICANTS

DIE SLICK® 4516 LUBRICANT

APPLICATION SHEET

BENEFITS

- » Forms a tough thermodynamically activated die film that resists soldering on hot die areas while not building on cooler die areas.
- » Castings are extremely bright and clean
- » Does not cause paint or coating problems
- » Exhibits excellent emulsion stability when diluted
- » Minimal smoke and no staining

APPLICATIONS

Synthetic lubricant which contains a blend of reactive polymeric lubricants. The formulation incorporates Smart Polymer technology and high molecular weight alkane cross-linking agent. Smart Polymer technology is a thermodynamically reactive polymer blend which forms a tough barrier on hot areas of the die while lightly coating cooler less demanding areas. This unique property translates to reduced solder, enhanced release and wetting characteristics while producing bright and clean castings. It contains 25% by weight active material and no low molecular weight oil components.

STORAGE AND HANDLING

Please see SDS for more detailed information.

PROPERTIES

PROPERTY	TYPICAL VALUE
Appearance / Colour	White liquid
Odor	Mild
Flash point (COC)	N/A
Density (kg/m ³)	984
pH	8.0 - 9.0

ALLOY	DILUTION RATIO*
ALUMINUM	50-150 : 1
ZINC	50-150 : 1
MAGNESIUM	70-120 : 1

* The dilution ratios are recommendations based on G.W. Smith & Sons experience in the field. Each Die Casting facility is unique and each operator should evaluate the recommended starting ratio based on his / her experience.

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