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Deltaforge™ F-61

Forging Die Lubricant

DESCRIPTION

Deltaforge F-61 is specially designed for use on warm and hot ferrous forgings. **Deltaforge F-61** is a water-based graphite die lubricant formulated for high performance with varying water hardness. It provides excellent lubrication for superior metal movement, adaptable to both mechanical and hydraulic press forging cycles. Applied on dies from 250-650°F (121-343°C) and above by spray or flood, **Deltaforge F-61** forms a highly lubricious film, with residues softer than many graphite die lubricants.

ADVANTAGES

- Hard water stable
- Excellent metal movement
- Stable, uniform concentrate
- Ammonia-free
- Easy die cleaning
- Reduced nozzle maintenance

TYPICAL APPLICATIONS

- Hot forging of steel
- Warm forging in combination with an Acheson billet coating

TYPICAL PROPERTIES

Lubricant	: processed micro-graphite
Solids content	: 18-18.5%
Particle size	: 50% <2µm, 90% <10µm
Fluid component	: water
Consistency	: liquid
Viscosity	: 400-1000 cps Brookfield, stirred
Density	: 9.2 lb/gal
pH	: 10-11.5
Freezing point	: 32°F (0°C)
Shelf life	: 6 months from date of qualification

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APPLICATION

Dilution

Deltaforge F-61 is supplied as a concentrate and can be diluted with soft tap or hard water to provide an even dispersion. For best results, stir the concentrate before diluting to slightly reduce viscosity.

IMPORTANT: Add water to the concentrate, not the reverse. Stir the concentrate thoroughly, then add one part water slowly while stirring until the mixture is homogenous. The remaining water may be added rapidly while stirring until the desired dilution and consistency are reached.

Application

Deltaforge F-61 can be flood applied where needed. Filtration to remove scale is recommended for recirculating systems. For best results, diluted **Deltaforge F-61** should be applied to dies above 250°F (121°C) by conventional spray techniques. Spray application provides uniform coating thickness, complete die coverage, and lower friction values. Manual and automatic spray systems especially designed for application of die lubricants are available from Acheson Colloids Company under the Dag® Lubriplate name. Please contact Acheson Colloids Company for more information.

APPLICATION ASSISTANCE

Acheson's **Application Specialists** are available to assist you in production start-up with **Deltaforge F-61**. For more information, please contact Acheson Colloids Company, (800) 255-1908, fax: (810) 984-1446, web.mail@nstarch.com, or visit our website at www.achesonindustries.com.

HEALTH & SAFETY

Harmful if swallowed, inhaled, or absorbed through skin. May cause eye irritation. Wash thoroughly after handling. Keep away from heat, sparks, or flame. Keep container tightly closed when not in use. Use with adequate ventilation. Avoid breathing vapor. Empty containers may retain hazardous properties. Follow all MSDS/label warnings even after container is emptied.

STORAGE/SHIPPING/HANDLING

Store **Deltaforge F-61** in a cool place, but do not allow product to freeze. Product should not be used once frozen. Always tightly reseal the container to prevent evaporation or contamination. See Acheson Material Safety Data Sheet for current safety and first aid instructions.

NOTE

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