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Deltaforge™ 182

Die Lubricant and Billet Coating

DESCRIPTION

Deltaforge 182 is a versatile, unique graphite in water dispersion that is used as a die lubricant or as a billet precoat when forging and/or extruding various metals and alloys at extreme temperatures and pressures. As a billet coating, **Deltaforge 182** remains stable and resists deterioration even when exposed to temperatures in excess of 1800°F (982°C). The maximum exposure time depends on furnace conditions but can exceed 20 minutes at 1800°F/982°C) without protective atmospheres.

Deltaforge 182 also can be used as billet end coating for aluminum extrusion. It can be spray applied directly on the ends of aluminum billets following hot shearing, thus providing effective lubrication.

As a die lubricant, **Deltaforge 182** can be spray applied – even when tooling has attained “color”, which usually indicates temperatures of 1250°F (677°C) or greater.

The inherent lubricating properties of **Deltaforge 182** help reduce die pressure and wear, and aid in die cooling. It is smokeless, nonflammable, and has no harmful vapors.

ADVANTAGES

- Ability to wet at very high tool temperatures
- High lubricity
- Excellent thermal stability as a billet coating
- Protection from oxidation
- Improved plant environment
- Nonflammable
- No harmful vapors

TYPICAL APPLICATIONS

Lubricant	: processed micro-graphite
Fluid component	: water
Diluent	: water
Consistency	: fluid
Density	: 10.7 lb/gal (1.28 kg/l)
Freezing point	: 32°F (0°C)
Shelf life	: 6 months under original seal

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APPLICATION

Billet Coating

When using **Deltaforge 182** as a billet coating, substrates must be clean and free of oil, scale, etc. prior to coating. Dilute one part product to one part water for initial trial. No further pretreatment is required.

For best results, parts should be heated to 250°-300°F (121°-149°C), then briefly dipped in the **Deltaforge 182** bath. As parts are removed from the bath, the water evaporates rapidly, leaving an extremely adherent film. The bath should be continually agitated to assure uniform film thickness from piece to piece.

Important: The **Deltaforge 182** bath temperature should not be allowed to exceed 140°F (60°C).

Die Lubrication

As a die lubricant, **Deltaforge 182** should be spray applied. Manual and automatic spray systems especially designed for application of die lubricants are available from Acheson Colloids Company under the Dag® Lubrimate name. Please contact Acheson Colloids Company for more information.

Mixing

Dilute **Deltaforge 182** at a 1:1 (product:water) ratio for initial trial on tooling in excess of 1000°F (538°C).

Always add water to the concentrate, not the reverse. To mix, slowly stir in a small amount of water. When the mixture is homogeneous, add the remaining water more rapidly, stirring until the required dilution ratio is reached.

APPLICATION ASSISTANCE

Acheson's **Application Specialists** are available to assist you in production start-up with **Deltaforge 182**. 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 182** in cool place, but do not allow product to freeze. 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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