



# Product Data Sheet

## Deltaforge™ F-890

### Hot Forging Lubricant

#### DESCRIPTION

**Deltaforge F-890** has a relatively high graphite content, allowing economical dilutions for simple work, thus reducing consumption.

**Deltaforge F-890** reduces both tool wear and scrap rates.

#### TYPICAL APPLICATIONS

- **Deltaforge F-890** is a versatile lubricant recommended for hot forging and pressing of steel.

#### PHYSICAL PROPERTIES

(as supplied)

Pigment/Lubricating solid :	natural graphite
Carrier :	water
Diluent :	water
Consistency :	viscous fluid
Density :	ca. 1200 kg/m <sup>3</sup>
Solids content (120°C, 1½ hrs.) :	ca. 31%
Viscosity (Brookfield 20°C, 20 rpm, 15 min.) :	ca. 2500 mPa.s
pH :	ca. 11
Shelf Life :	12 months from date of qualification under original seal

#### METHOD OF USE

**Deltaforge F-890** is a concentrate to be diluted before use. It is dilutable with between 5 and 30 parts of water to one part of product, typically 10 parts of water. Dilution ratios depend upon the severity of the job, temperature of the tools to be coated and the degree of cooling required.

##### Dilution

For dilution it is sufficient to add **Deltaforge F-890** to a tank and top it up with water.

Water hardness may affect the performance of the product.

Diluted **Deltaforge F-890** requires agitation to ensure its homogeneity.

##### Application

**Deltaforge F-890** may be applied by spray techniques. For all graphite in water products, the use of stainless steel or reinforced plastic lubricant supply systems is recommended.

##### Disposal

**Deltaforge F-890** may be removed from waste water by means of filtration; however, it passes through most filters unless it is first destabilized. AlCl<sub>3</sub> has been shown to be quite effective at reasonable cost; additional flocculants may be required.

Although the constituents of **Deltaforge F-890** are not considered hazardous the filtercake is likely to contain other contaminants and should therefore be treated as chemical waste.

Spills should be collected and mopped up with absorbent material.

#### STORAGE/ HANDLING

- Freezing will damage the stability of the product.
- Storage in direct sunlight may overheat the product and impair its quality.
- Reseal containers after use to avoid contamination

#### HEALTH & SAFETY

Please consult Material Safety Data Sheet.

#### NOTES

Deltaforge™ is a trademark of Henkel AG & Co KGaA.

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