

THERMEX WG 403 C

Water and graphite based warm and hot forging release agent

DESCRIPTION

THERMEX WG 403 C is an economical graphited water based forging lubricant. When mixed with water THERMEX WG 403 C forms a stable dispersion, which is spray applied to the hot die to give an even film for best results.

APPLICATIONS

THERMEX WG 403 C is designed for use on hammers, multiple-die forging presses and for extrusion of ferrous and nonferrous alloys such as steel, stainless, titanium, nickel and super alloys.

hot metal forgings

near net-shaped parts

aerofoil blades

crank-shafts, axles

hubs, con-rods, rings

deep forgings & flat forged parts

RECOMMENDATION FOR USE

THERMEX WG 403C is normally mixed with water at 5% to 30 % concentration depending on the difficulty and amount of deformation. Suggested starting concentrations:

Light forging : 3-5 %

Medium forging : 5-10 %

Difficult forging : 10-30 %

Adjust the concentration as necessary.

TYPICAL PHYSICAL PROPERTIES

| | | |
|-------------------------------------|--------------|-------------|
| Appearance | Black liquid | |
| Specific gravity @ 20°C | 1.38 | ASTM D 1298 |
| pH @ 10% | 7.6 | DIN 51396 |
| Solid Lubricant | Graphite | |
| Viscosity BK-20°C (S05-20rpm) mPa s | 3573 | |

BENEFITS

- Reduces costs and increases productivity - economical product, high lubrication properties, reduces die wear, prevents pick-up and scoring, promotes good metal flow in hot operations on dies up to 400°C.
- Reduces inventory - suitable for a wide range of metals and applications.
- Easy to use - stable, medium particle size graphite dispersion, can be used as supplied or easily diluted with water to form a dispersion.
- Operator and Environmentally friendly - mineral oil and ammonia free

ADDITIONAL PRODUCT DATA

It is recommended that dilutions are made with suitable mixing equipment. If manually mixing, add water slowly to the product while mixing for best results. Most graphite dispersions should be stirred in use to ensure even dispersion of the graphite.

RELATED PRODUCTS

THERMEX GL lubricants are available for aerospace, power generation and medical forgings on titanium, nickel and other superalloys. Houghton specialises in products and services for Heat Treatment, Machining and Grinding, Cleaning, and Fire Resistant Hydraulic Fluids and Industrial Lubricants. For more information, please contact your local Houghton representative.

STORAGE

Please refer to section 7 of Safety Data Sheets for handling and storage information, including product shelf life. Product should be stored under cover in clean, dry conditions and protected from frost. Recommended storage temperature is usually between 5°C and 40°C unless otherwise specified. Use stock in delivery rotation.

HEALTH AND SAFETY

Safety data sheets are available in accordance with Regulation (EC) No 1907/2006 Annex II where a substance or preparation meets the criteria in accordance with Directives 67/548/EEC or 1999/45/EC.

GT 2013/11/08 GB



HOUGHTON™

Houghton plc
Beacon Road, Trafford Park
Manchester M17 1AF

Tel +44 (0) 161 874 5000
Fax +44 (0) 161 874 5001
E-mail
uk.enquiries@houghtoneurope.com
<http://www.houghtonintl.com>

This document contains information based on data that is believed to be correct. However, the product may not be applicable to all uses and operating environments. No warranty or guarantee is expressed or implied.