

ECOCOOL GLOBAL S 240

Water-Miscible Metalworking Fluid for Composite Machining

Description

ECOCOOL GLOBAL S 240 is a boron-free, mineral oil-free, water-soluble metal working fluid which forms a transparent, clear solution.

ECOCOOL GLOBAL S 240 provides good corrosion protection, minimal foaming leaves no sticky residues and has good wetting and flushing properties.

ECOCOOL GLOBAL S 240 offers extraordinarily low foaming. In addition, low consumption contributes to overall economy.

ECOCOOL GLOBAL S 240 is free of secondary alkanolamines/amides.

ECOCOOL GLOBAL S 240 conforms to German TRGS 611.

Application

ECOCOOL GLOBAL S 240 is recommended for the machining operations of composite material, also in combination with aluminum and titanium alloys (Stacks).

Recommended application concentrations:

Machining: 6 - 8 %

Benefits / Advantages

- Free of boron- and formaldehyde, MEA, Silicon
- Facilitates highest machining performance
- High cutting speeds
- Outstanding surface finish
- Minimal foaming with all water hardness
- Excellent corrosion protection
- Leaves no sticky residues
- No aluminum staining
- Good skin compatibility
- Contributes to saving resources
- Water hazard class: WGK 1

Approval

AEROSPACE

AIRBUS - AIPS 00-00-010 / AIPI 03-07-002



ECOCOOL GLOBAL S 240

Water-Miscible Metalworking Fluid for Composite Machining

Typical chemical and physical properties

Property	Unit	Data	Test method
Density at 15 °C	g/ml	1.05	DIN 51 757
Kinematic viscosity at 40 °C	mm ² /s	2.9	DIN 51 562-1
Corrosion test solution ≥ 5 %	degree of corrosion	0 – 1	DIN 51 360-2
pH value 5% DIN Water		9.0	DIN 51 369
Handheld refractometer factor		2.5	FLV-T 5 *)

*) FLV = Test procedure of FUCHS SCHMIERSTOFFE GMBH

Application Concentration:

To ensure the optimum corrosion protection, we recommend a concentration of at least 6 %.

However, the ultimate concentration must also be compatible with the materials involved and the machining operation.

Mixing Temperature:

The optimum mixing temperature for water and concentrate is 15 - 20 °C.

Our Application Engineers will be pleased to advise you regarding specific applications.

Changes in the colour of the water-miscible cutting fluid concentrate have no detrimental effect on the quality or the performance of the product.

As regards application, please observe VDI Guidelines 3035, 3397 Sections 1 – 3 and DGUV 109-003 „Tätigkeiten mit Kühlschmierstoffen“.

Storage conditions:

Minimum Storage Life: 12 months from day of delivery.

Prerequisites are the correct storage in unopened, original containers, protection from direct sunlight and rain. The storage temperature should not fall below +5 °C or exceed above +40 °C.

Extensive practical experiences have shown that the characteristics of our products do not deteriorate even if the above-mentioned storage periods are exceeded.

We will be pleased to check the product in our FUCHS laboratory for further usability after the minimum storage period has been exceeded.

The information contained in this product information is based on the experience and know-how of FUCHS SCHMIERSTOFFE GMBH in the development and manufacturing of lubricants and represents the current state-of-the-art. The performance of our products can be influenced by a series of factors, especially the specific use, the method of application, the operational environment, component pre-treatment, possible external contamination, etc. For this reason, universally-valid statements about the function of our products are not possible. Our products must not be used in aircrafts/spacecrafts or their components, unless such products are removed before the components are assembled into the aircraft/spacecraft. The information given in this product information represents general, non-binding guidelines. No warranty expressed or implied is given concerning the properties of the product or its suitability for any given application.

We therefore recommend that you consult a FUCHS SCHMIERSTOFFE GMBH application engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care.

Our products undergo continuous improvement. We therefore retain the right to change our product program, the products, and their manufacturing processes as well as all details of our product information sheets at any time and without warning, unless otherwise provided in customer-specific agreements. With the publication of this product information, all previous editions cease to be valid.

Any form of reproduction requires express prior written permission from FUCHS SCHMIERSTOFFE GMBH.

© FUCHS SCHMIERSTOFFE GMBH. All rights reserved.