



Polartech® 8224 Combined Emulsifier and Corrosion Inhibitor Package

Description

Polartech® 8224 is a cost-effective grade, low oil, boron based, formaldehyde free, semi-synthetic water-based metalworking fluid package. The package was developed using Italmatch proprietary technology that delivers long service life fluids with exceptionally low foaming characteristics for general machining operations. It is designed to be aluminium compatible as it contains an aluminium stain inhibitor.

Typical Applications

- General ferrous machining including stainless steels
- Nodular and Cast Irons
- Free cutting aluminium alloys
- Composite and polymeric materials
- High pressure coolant delivery systems

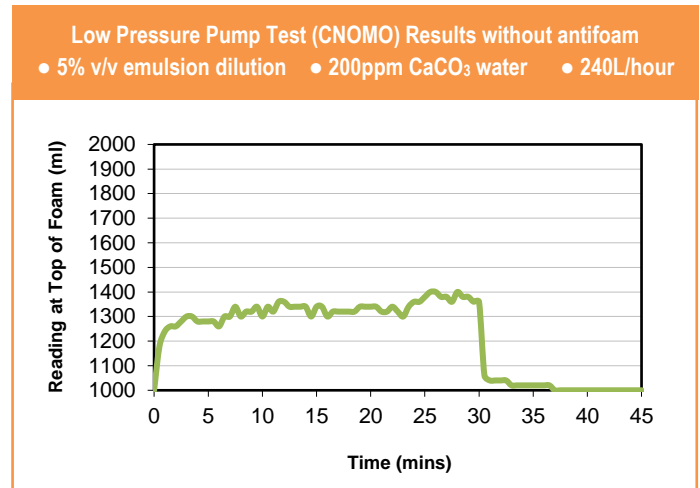
Key Performance Benefits

- Secondary amine free for use in TRGS 611 compliant products
- Italmatch proprietary low foam emulsification technology giving exceptional stability in soft and hard waters
- Flexibility in biocide choice: either formaldehyde release or formaldehyde free
- Low odour for greater operator acceptability.
- Enhanced lubrication performance

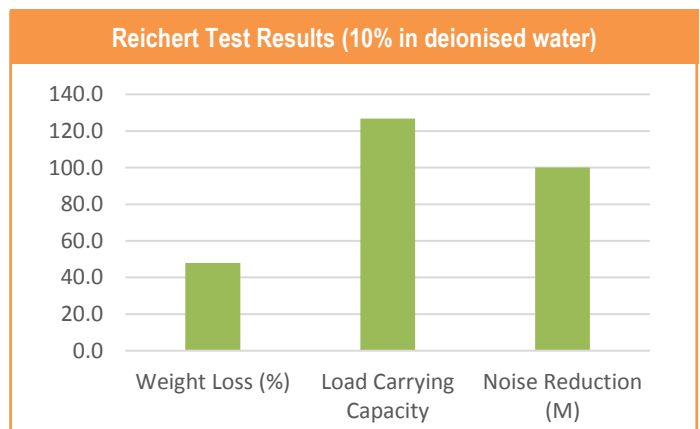
Typical Package Characteristics

Appearance:	Amber fluid
Specific Gravity at 15.5°C:	1.044
Total Alkalinity, % wt KOH:	10.2

Low Foam Performance



Emulsion Quality and Stability





Recommended Blend Ratios

Component	% wt
Polartech® 8224	47.0
Good Quality Water	50.09
Biocide ¹	2.0
IPBC 30% ²	0.8
Polartech® MP 940 AL	0.08
Antifoam ³	0.03

¹ Troyshield B 20 (BIT)

³ Troyshield® FX40

⁴ Foamban® HP 720

Typical Blended Product Characteristics

Concentrate
Appearance: Amber Fluid

Emulsion
Appearance: Semi Translucent
IP287, Break Point, %: 2.5
IP287, clear paper, %: 4.0
DIN 51360 / 2: 5.0
pH @ 5% in deionised: 9.4
Refractometer Factor: 2.5

Concentrate Blending Advice

1. Blend between 20-30°C.
2. Charge vessel with Polartech® 8224.
3. Add good quality water slowly with continuous mixing.
4. Add biocide and fungicide and mix until the blend is clear and homogeneous.
5. Finally add antifoam and mix thoroughly for a minimum 30 mins.

Please contact Italmatch Chemicals for further detailed formulation and blending guidance, including use with various base oils.

Ferrous Corrosion Protection – IP287

