



Elitecool EM 222

Cutting and Grinding Fluid

General Description

EM 222 is premium semi-synthetic coolant formulated for the machining of a wide range of materials. Blended with high quality base oil and special chemical additives, the product has excellent lubricity to do heavy-duty machining including drilling, honing and threading applications. EM 222 also has very good cooling, non-foaming and rejects tramp oils very well thus keeps the machine very clean.

- Most suitable for the machining of cast-iron, steels, and glass/ceramic substrate
- “Operator-friendly” product – low odor, non-foaming and low mist
- Good “chips-settling” – keeping the coolant sump clear and clean
- Stable emulsion for extended coolant sump life – also suitable for central systems
- Good rust protection for ferrous metals

Application Guidelines

Recommended concentration

| | |
|----------------------------------|-----------|
| CNC Turning | 8% to 12% |
| CNC Milling and Drilling (light) | 8% to 12% |
| Tapping and Threading | 8% to 15% |
| Grinding | 4% to 7% |
| Honing | 5% to 8% |

- Always premix the coolant before adding to machine – never pour concentrate directly into tank
- DO NOT add water to tank to reduce concentration – pre-mixed coolant at lower concentration
- DO NOT mix this product with other metalworking fluid, or fluid additives, unless these fluids are recommended by ELITE Alliance Technology
- Using auto-proportioning device/equipment is recommended; if by hand, make sure to agitate well
- When machine soft and gummy material, use higher concentration for improved finishes
- Concentration above 6% extend sump life and provide good rust protection on ferrous metals

Material Suitability

| Primary | Others |
|--------------------|-------------------|
| Steels | Stainless steel |
| Cast-Iron | Aluminum alloys |
| Glass | Aluminum die-cast |
| Ceramic substrates | |

- Before using the coolant to machine materials not listed in table above, or if you are unsure whether the coolant is the most suitable choice for your application, consult ELITE Alliance Technology or your Distributor



PRODUCT INFORMATION

Products for SAFETY, PERFORMANCE and CONSERVATION

Typical Characteristics (Physical Properties)

| | | | |
|----------------------------|-------------|------------------------------------|-----------|
| Form | Liquid | Flash Point, COC | > 120°C |
| Color | Light Brown | Fire Point, COC | > 130°C |
| Odor | Mild | Specific Gravity | 0.996 |
| Refractometer Factor | 2.0 | Density (H ₂ O=1)..... | 1.155 |
| pH (at 10% dilution) | 9.1 | pH (typical operating range) | 9.0 – 9.3 |

Maintenance Recommendation

- Using pure water (de-ionized or reversed osmosis) to mix coolant improves coolant sump life, reduces concentration usage and minimizes ‘carry-off’.
- When mixing coolant with water, add the coolant concentrate to the water – not the reverse. Agitate well as coolant concentrate is added into water.
- Do not exposed premixed coolant for long period – foreign contaminants may affect its characteristics. The best is to premix the coolant when needed.
- The ‘topping-up’ concentration should balance water evaporation rate with the coolant ‘carry-out’ rate. Generally, adding ‘top-up’ coolant at between 30% - 40% of the desired working concentration will maintain the proper concentration of the coolant sump.
- Refer to the most recent Product MSDS document for guideline on waste coolant disposal.

Health and Safety

Refer to the most recent Product MSDS. Consult ELITE Alliance Technology or your distributor if inadvertent contamination should occur.

Shipping Units

ELITE Alliance Technology’s products are available in pail (20L), drum (200L) and plastic tote (1000L). All products are packed with care and are safe for trans-shipment and export worldwide.

For more information, please contact: **ELITE Alliance Technology (ASIA) Pte., Ltd.**
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28/08/2014

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