

STARCHEM

StarCool 110C

Synthetic Cutting and Grinding Fluid Concentrate

GENERAL DESCRIPTION

StarCool 110C is a high performance, synthetic metalworking fluid designed specifically for moderate to heavy duty working of cemented carbides, and is ideal for shops that prefer to use an oil-free product. **StarCool 110C** contains a proven and highly effective combination of inhibitors that significantly reduces the leaching of cobalt and nickel binders. The integrity of the carbide workpiece is maintained, and more importantly, the addition of toxic metal ions into the metalworking fluid environment is minimized.

StarCool 110C also provides excellent lubricity and cooling to extend grinding wheel life, and to improve workpiece finish. Grinding wheels remain open, and swarf quickly settles to the bottom of the sump for easy filtration due to superior rinsing and settling properties.

APPLICATION

StarCool 110C can be used in “stand-alone” machines and central systems. It is an ideal product for grinding applications such as surface, centerless, ID, OD, and Blanchard, and can also be used for light to moderate duty machining. StarCool 110C is extremely low foaming, making it an excellent choice in high-pressure applications.

ADVANTAGES

- Significantly reduces leaching of binders in cemented carbides
- Superior lubricity and cooling for extended wheel life and workpiece finish
- Excellent rinsing and settling properties for open cutting and good filtration
- Extremely low foaming in high pressure applications
- Excellent corrosion protection and microbial control
- Clear mix for good part visibility
- Rejects tramp oil for prolonged sump life
- Low odor and mist levels
- Low carry off for reduced concentrate usage

StarCool 110C does not contain nitrite, chlorine, silicone, or phenolic biocides.

PHYSICAL PROPERTIES

Form	Clear Liquid	Specific Gravity (H₂O=1)	1.03
Boiling Point	212°F	pH (concentrate)	9.6
Flash Point (COC)	NA	Typical Operating pH Range	9.2 – 9.4
Solubility in Water	100% Miscible	Refractometer Factor	1.8

AVAILABILITY

StarCool 110C is available in 5-gallon pails, 55-gallon drums, and in bulk.

RECOMMENDED STARTING DILUTIONS

Surface, Centerless, ID, OD Grinding 4% - 6%

Light to Moderate Duty Machining 5% - 7%

MIXING INSTRUCTIONS

Always add **StarCool 110C** concentrate to water. Mix concentration can be determined using a refractometer.

StarCool 110C CONCENTRATION

Concentration	4% (1:25)	5% (1:20)	6% (1:17)	7% (1:14)	8% (1:13)	9% (1:11)	10% (1:10)
Refractometer reading	2.2	2.8	3.3	3.9	4.4	5.0	5.6

StarCool 110C is not recommended for use on magnesium or alloyed magnesium.

Using premixed concentrate as makeup will improve performance and reduce usage. The specific makeup concentration selected for your situation should balance the water evaporation rate with the coolant carry-off rate. Adding makeup concentrate at 20-30% of the desired working concentration will generally maintain the proper concentration in use. The use of deionized or mineral-free water will also improve performance, prolong sump life, and reduce concentrate usage.

HEALTH & SAFETY

The most recent MSDS is available from either **STARCHEM** or your authorized **STARCHEM** Distributor.

NOTES

- Consult **STARCHEM** before using this product on any metals or applications not specifically recommended
- Do not use any metalworking fluid additives except as recommended by **STARCHEM**
- The general description, recommended uses, application data and statements in the product literature are guidelines. Because this product may be used for a variety of applications over which **STARCHEM, Inc.** has no control, **STARCHEM, Inc.** assumes no liability for incidental, consequential, or direct damages of any kind, regardless of causes, including negligence.

STARCHEM INC.

3000 Disney St.
Cincinnati, Oh. 45209
888-246-2665
www.starchem.net