

AUTOMOTIVE (USA)

BRAKE SYSTEM COMPONENTS

CASTROL HYSOL® MB 10

Elimination of Cast Iron Smut



Hysol MB 10 eliminates cast iron smut while maintaining tool life and reducing make-up rates.

THE SITUATION

A brake system components supplier wanted to reduce costs in their cast iron component manufacturing area. They had a number of manufacturing cells dedicated to cast iron brake calipers and agreed to test Hysol MB 10.

BEFORE CASTROL

- Previous coolants were challenged by the typical cast iron machining experience. Smutty residues in the CNC machining centers, marginal sump life, and higher operating cost than desired were the story of their operations.

AFTER CASTROL

- Castrol recommended a trial of Hysol MB 10. The CNC machine selected for the test machined caliper castings. Operations included milling, boring, drilling, tapping, grooving and chamfering. The Hysol MB 10 test machine stayed clean with good tool life, equal to the previous products tested. No foaming occurred and there were no problems with odor.

THE SOLUTION

- The introduction of Castrol Hysol MB 10 showed improved machine cleanliness.
- No coolant odor developed in the machine.
- This customer found that carbide insert life was equal or better than the previous semi-synthetic product.
- Coolant makeup was noticeably less than previous products, averaging about a 10 week turn-over rate. Chips were dry and were able to be effectively removed by the magnetic chip drag.

RECOMMENDATIONS

The customer received very good performance when using Hysol MB 10 at concentrations of 6 to 8%, varied depending on the operation being performed. This was a slightly elevated concentration as compared to the baseline but was quickly recovered with the very low usage of Hysol MB 10.

PRODUCT PROPERTIES

The clean appearance of the machine and tooling is popular with the operators, who enjoy the cleaner working environment gained by using Hysol MB 10.

CONCLUSION

Castrol engineers found that Hysol MB 10 was an ideal product for this customer. It fit all their requirements, including machine cleanliness, acceptable sump life, and good tool performance.



OTHER POTENTIAL APPLICATIONS

Castrol Hysol MB 10 is an ideal product for customers who have cast iron or low alloy steel applications. Great machine cleanliness, low product usage and excellent operator acceptance make for a winning combination.