

## PERFORMANCE TESTS

# ROBO

### SCOPE

This test is targeted to evaluate used oil low temperature performance as currently measured by the Sequence III GA in the GF-4 specification. Developed by Degussa Rhomax Additives, the ROBO was accepted by ILSAC/Oil for further evaluation as a potential substitute for the Sequence III GA.

### TEST CONDITIONS

- 200 grams of test fluid
- 15 ppm iron ferrocene catalyst
- 2 ml high purity nitrogen dioxide (liquid phase) delivered for 12 hrs.
- 185 ml per minute of dry air
- 200 rpm agitation
- 18mm Hg for vacuum
- 35-45% loss of volatility
- Reaction temperature 170°C
- Reaction time 40 hours

### KEY CURRENT ACTIVITIES

The ROBO test is intended for inclusion in GF-5 and projected to become an ASTM standard. Laboratory round robins are complete and the test is now proceeding to ballot within ASTM. Following is the most recent report on the ROBO test developments made to ILSAC/Oil.



Microsoft PowerPoint  
Presentation