

## **A laboratory investigation on the rheological properties of aged and unaged organic wax modified asphalt binder**

### **ABSTRACT**

Different proportions of Sasobit (Sasol Wax, Hamburg, Germany) content were blended with 60–70 penetration grade asphalt binder type and were subjected to physical and rheological tests in order to determine the influence of Sasobit on asphalt binder. The test results indicated that Sasobit had different effects on temperature susceptibility of binders. Frequency sweep test showed that binders containing Sasobit had higher complex modulus compared to the control binders. In addition, lower phase angle values were observed for Sasobit-modified binders. FTIR analysis showed changes in the microstructure and weight distribution of Sasobit-modified binders.

**Keyword:** Warm mix asphalt; Sasobit, failure temperature; Rheological properties; FTIR