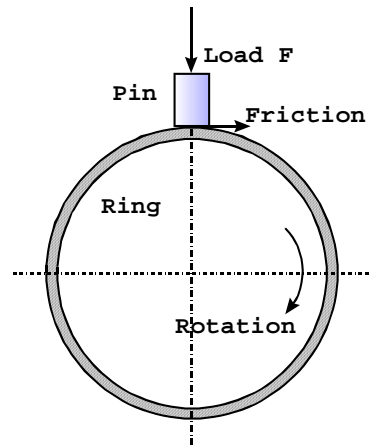


# PIN ON RING DATA SHEET

“Influence of Shieer Olein additive on Pin-on-Ring measurement”

Tested at the Laboratory of Tribology,  
Delft University of Technology, the Netherlands  
Date: august 2001

Basic oil: Shell Multigrade 15W40  
Additive : Shieer Olein

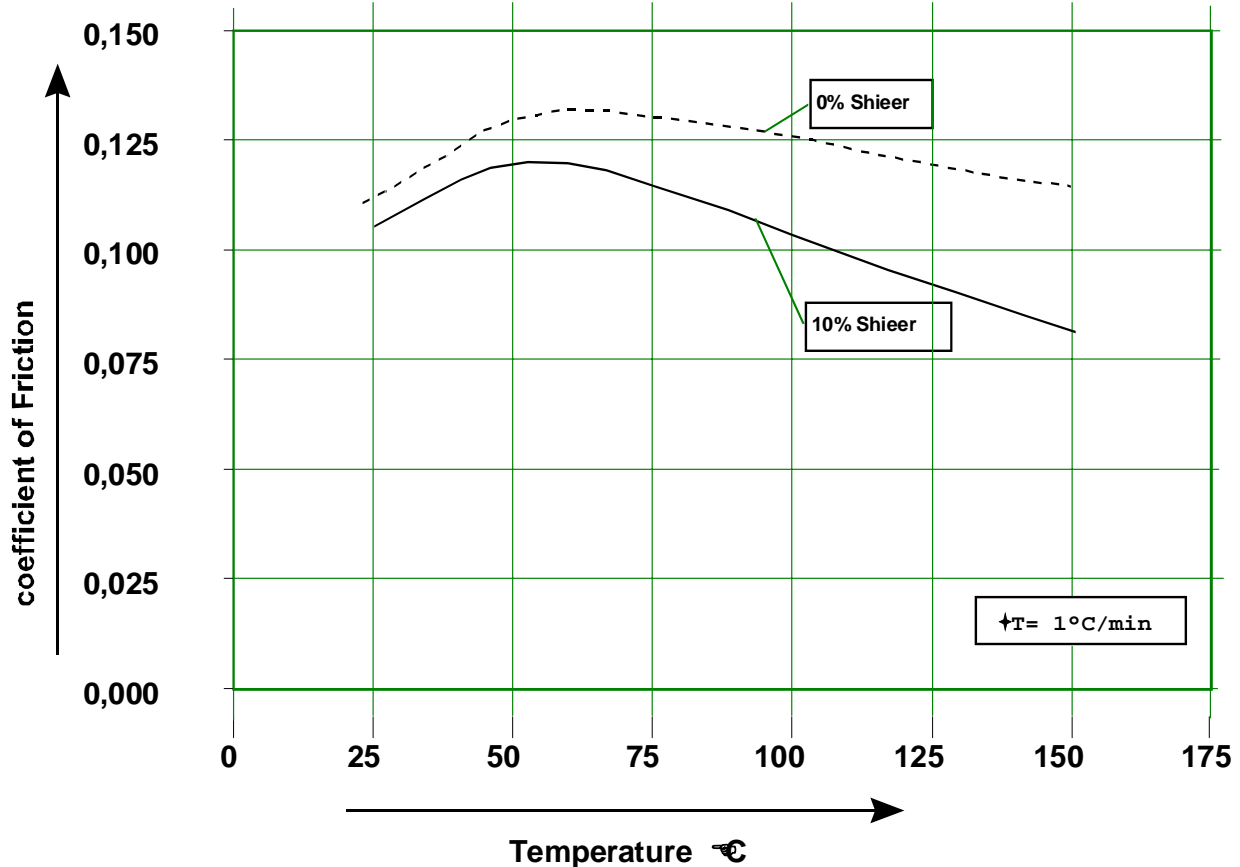


Pin: Cilinder of bearingsteel 8,0 \* 12,0 mm (900 – 700 HV)  
Ring: Bearingsteel INA IR 65\*73\*25 mm

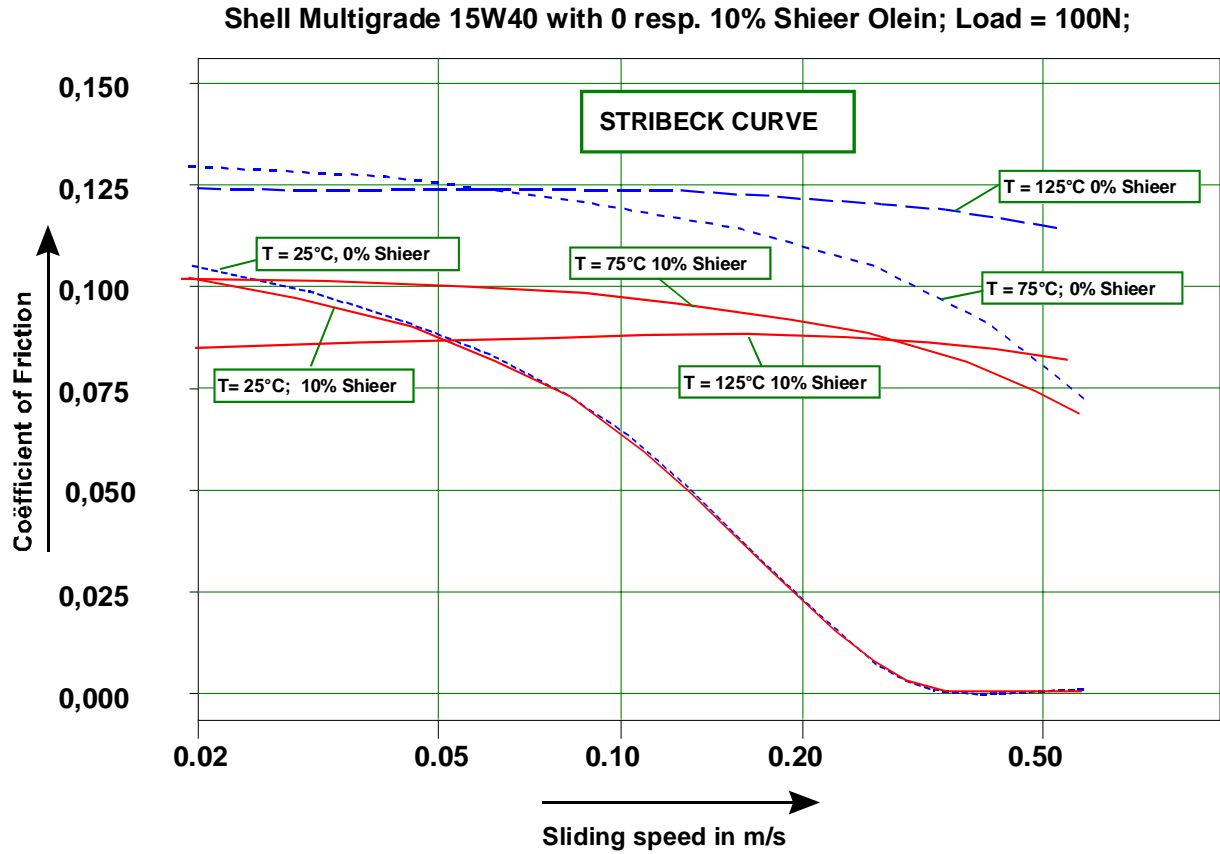
$R_a = 0.1 \cdot 10^{-6} \text{ m}$   
 $R_a = 0.1 \cdot 10^{-6} \text{ m}$

## Test 1: Influence of additive on the coefficient of Friction vs Temperature

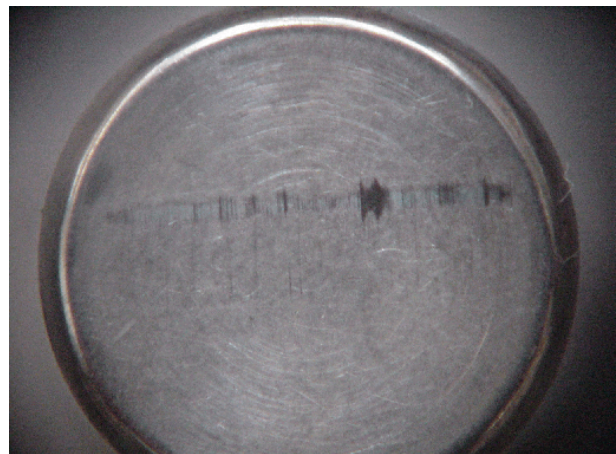
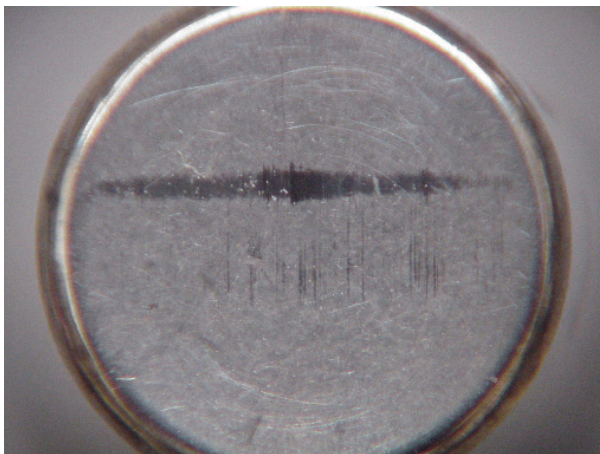
Shell Multigrade 15W40 with 0 resp 10% Shieer Olein; Load = 100N; sliding speed = 0.03 m/s



**Test 2: Stribeck measurements of oil with /without additive at different temperatures**



Impression of wear on pins



wear test without additive

wear test with 10% additive

Test conditions: Slidingspeed 0.03 m/s; temperature 75°C; duration 72 hours