

Fluorophos ALP Calibration

The Fluorophos test is an optical method based on measuring fluorescence generated. The Fluorophos requires regular calibration because different dairy products have different levels of turbidity (cloudiness). The Fluorophos should be calibrated:

- Every 3 months
- When the Fluorophos is installed or moved
- Whenever service procedures may have affected the calibration parameters
- When controls (PhosphaCheck) indicate unacceptable results

To calibrate the Fluorophos you will require an ALP calibrator set (FLA250) which contains Calibrator A, B and C. The calibrator set has an 18 month shelf life at 4oC.). 4ml of each calibrator is used per calibration, so the kit contains enough for 7 calibrations.

Calibration Procedure

Before carrying out the calibration procedure the Daily Instrument Control - FLA280 must be completed.

1/ Accurately pipette 2ml of calibrators 'A' – 'B' – 'C' into 6 glass cuvettes (two each per calibrator).

2/ Place cuvettes in the heater block for 10 minutes.

3/ Press 'CALIB' and select the 'ALP Dairy' menu.

4/ Scroll through the menu and press 'Enter' when the product channel to be calibrated is displayed. The previous calibration settings will be printed and you will be asked to INSERT A and press START. Follow on-screen instructions until the end.

5/ Pipette 75µl of the milk/cream sample to be calibrated, into the two pre-warmed 'A' cuvettes. Accuracy is paramount, any variation to the 75µl will cause calibration errors. Note: The calibration procedure must be completed within 10 minutes of adding the sample to the calibrators.

6/ Mix well, then insert the first 'A' cuvette in the Fluorophos, wait 5 seconds and press 'START'.

7/ When the measurement is finished measure the second 'A' calibrator.

8/ Follow the same procedure for 'B' and 'C' calibrators until the calibration is completed.

9/ A calibration ratio is calculated and reported. Monitoring these ratios for the different products can be useful.

10/ If calibration is rejected check accurate calibrator and sample volumes are used. Small variations in volumes will result in rejection.

Calibration Error Messages

Unacceptable Calib Ratio	The difference in FLU between calibrators is greater than allowed. Repeat
Standards Reversed	The calibrators were not tested in the correct order. Repeat.
Calibration not Complete	The difference between FLU of duplicate readings on each calibrator must be less than ± 5 FLU. Due to incorrect volumes.

<p>Calibration not Acceptable</p>	<p>Not at the correct temperature Or calibrators off Or check 602 reading Or excitation filter needs replacing</p>
-----------------------------------	---

Calibrating the 75ul Pipette

Pipette Plunger Tip

1/ The plunger should to be proud of tip when depressed.

2/ Loosen knurled nut (A).

3/ Screw pipette tip (B) in or out and lock with (A).

75µl Volume Adjustment

1/ Use the calibration gauge and key (C) to check movement of plunger.

2/ To adjust loosen screw (D) and push plunger tip to end of gauge (C) then re-tighten Screw (D).

