



eDry™

Patent Pending
Quick Start Guide
(#801.0923)
copyright: 2016
version: 1

Introduction

The eDry™ is an accessory kit designed to be a simple and effective way of drying asphalt emulsions in less than 30 minutes using the CoreDry™. It enables laboratories to recover the residual asphalt of emulsion to determine the percent residual asphalt without changing the binder properties. The residual binder can be tested using test standard methods, such as the shear strength using DSR and the flexibility using BBR.

Equipment

The eDry kit includes the following:

- 1 thin film spreader
- 1 rack with 5 shelves
- 10 metal pans and silicone liners (5 for testing and 5 for preparing the next sample)
- CoreDry control board (necessary for older models)



Warranty

InstroTek extends a 1-year warranty on the eDry equipment to the original purchaser of this equipment. This warranty covers defects in material, workmanship and operation under the conditions of normal use and proper maintenance. This warranty includes all components except for the normal wear components including the silicone sheets.

InstroTek will replace, free of charge, any part found to be defective within the warranty period.

This warranty is void if inspection shows evidence of abuse, misuse or unauthorized repair.

This warranty covers replacement of defective materials and workmanship only. It does not cover shipping charges, duties or taxes in the transport to and from the factory or authorized service center.

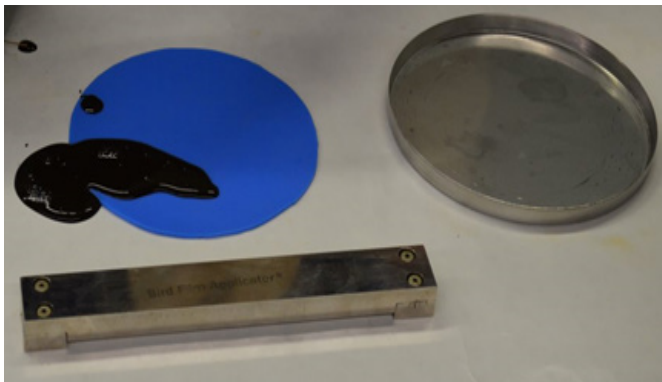
InstroTek's liability is in all cases limited to the replacement price of its products. InstroTek shall not be liable for any other damages, whether consequential, indirect, or incidental arising from use of its product.

If return of the product is necessary, please include return shipping directions, contact name, phone & fax number and a description of the action needed.

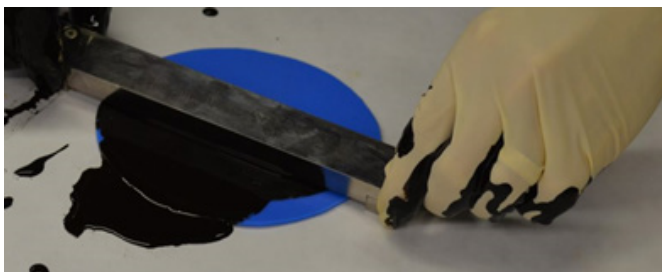
Call InstroTek, Inc. for shipping details at (919) 875-8371.

Preparing a Sample

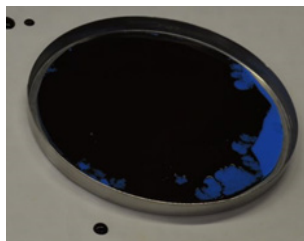
1. Prepare a space with a protective sheet to capture any spills of the emulsion.
2. Weigh a clean silicone sheet and metal pan to the nearest 0.01g to obtain the Tare Wt.
3. Remove the silicone sheet from the metal pan. Pour the emulsion on the silicone sheet to form a circle approximately the size of a quarter toward one edge of the sheet.



4. Spread the emulsion with the included thin-film applicator. Pull the applicator toward your body with a slow smooth motion. The applicator should slide across the surface of the silicone sheet.



5. Once the emulsion is spread, place the silicone sheet back in the metal pan. Be careful not to spill the emulsion.



6. Weigh the pan, sheet, and emulsion to the nearest 0.01g to obtain the Wet Wt. This should be done within 1 minute of spreading.
7. Clean the applicator with a paper towel or clothe.



8. Place the pan on the rack for drying.



9. Repeat the sample preparation process for the remaining 4 pans.
10. Turn on the CoreDry and select Program 5 for drying the emulsion.
 - Enter Menu. Select option 1. Program #. Press Enter.
 - Press Up/Down arrows until 5 is shown.
 - Press Enter, then press STOP
 - Verify that the main screen says "System Ready P5"
11. Place the rack in the CoreDry. Put the lids on the chamber and cold trap and press Start.
12. After the samples are dry, remove the rack. Weigh each pan, sheet, and residual binder to the nearest 0.01g to obtain the Dry Wt.
13. Calculate the residual content of the emulsion from the average of the total mass.

Calculations:

$$\% \text{ Residue} = ((\text{Dry} - \text{Tare}) / (\text{Wet} - \text{Tare})) \times 100$$

$$\% \text{ Moisture} = 100 - \% \text{ Residue}$$

Cleaning

1. The residual binder can be removed from the silicone sheet by folding the sheet in half and rubbing the two sides together to form a ball of asphalt binder.

NOTE: If the residual binder is to be tested, use latex or neoprene gloves to remove the binder to prevent contamination of the sample

2. Wash the silicone sheets with water.
DO NOT use solvents such as trichloroethylene (Tri-Co), acetone, orange cleaner or WD-40. These solvent can be absorbed by the silicone sheet and change the binder properties of subsequent samples.
3. Allow the sheets to dry.
4. Clean the thin-film applicator and metal pans with a solvent. Then wipe the surface clean to prevent contamination of the silicone sheets.