In collaboration with the National Center for Asphalt Technology, we developed a fast, accurate, environmentally-friendly, and cost-effective method for determining asphalt content. For research, quality assurance or quality control, the Thermo Scientific Thermolyne NCAT asphalt content furnace is the ideal solution.

A 12-lab round robin field test has been conducted exclusively with the Thermolyne® NCAT asphalt content furnace by NCAT. Results and proven performance are documented by NCAT.

The Thermolyne NCAT asphalt content furnace has set the standard for the industry in the determination of asphalt content by the ignition method. This system was an integral part of the drafting and eventual passage of the ignition method standard ASTM D6307, as well as AASHTO T308.

The Thermolyne NCAT asphalt content furnace provides asphalt content of bituminous paving mixtures, accurate to 0.11%.

**Efficient**
- 1200-1800 gram sample of asphalt can be tested in 30-45 minutes.
- The unit can accommodate samples up to 5000 grams!
- The Thermolyne NCAT asphalt content furnace has an internal scale that automatically monitors the sample weight throughout the ignition process, saving valuable time and increasing productivity in the lab.

**Simple**
- Simply enter the sample weight and calibration factor for your particular mix design.
- Place your sample load into furnace chamber, close chamber door, and press "start."
- Once the Ignition process is completed, the system will automatically end the test and print the results. A periodic "beep" indicates that the test has ended.

**Flexible**
- The unit utilizes a standard 30 amp electrical service as compared to competitive models that require 50 amp service, which costs more to install and operate.
- The modular design of refractory embedded heating elements provides extended service life and inexpensive, easy replacement when compared to competitive systems that may require shipment back to the manufacturer for heating element replacement.

**Safe**
The automatic door-lock feature prevents opening of the chamber door during the critical test time. This feature provides operator safety and helps ensure testing integrity.

**Environmentally Friendly**
The Thermolyne NCAT asphalt content furnace is the only system on the market containing a high temperature afterburner used in conjunction with a patented ceramic filter to reduce the emissions of the ignition process by up to 95%.
The Thermo Scientific Thermolyne NCAT Asphalt Content Furnace is sensitive to your requirements

- The NCAT system has the capability to accept positive or negative correction factors for use with mixes containing hydrated lime.
- This unique furnace automatically detects endpoint within .01% of the sample weight. Stability of the sample is reached once the endpoint criterion has been met for 3 consecutive minutes during the test. Endpoint sensitivity is adjustable from .01% to 0.5%.
- NCAT furnace software allows you to choose between automatic and manual test modes. In the automatic mode the endpoint is detected; the software ends the test, prints out the results and beeps.
- In the manual mode, the endpoint is detected; the unit begins to beep but will continue to test until the user presses “stop” to end it. Once the “stop” button has been pressed, the door will unlock and the results will be printed.
- NCAT furnace software automatically compensates for weight change due to sample and basket assembly temperature change. This compensation is computed for each sample load tested, unlike competitive models that assign a fixed number to a given range of load sizes.
- Thermolyne NCAT asphalt content furnace software computes test results as calibrated asphalt content per total weight of HMA sample or bitumen ratio per weight of dry aggregate.
- System contains 24-hour/7-day timer that can be programmed to preheat the furnace prior to the arrival of technicians.
- An RS232 port provides data interface with a personal computer for graphical data analysis.

Sample Test Data from Printer

<table>
<thead>
<tr>
<th>Time</th>
<th>Temp</th>
<th>Wt. LOSS</th>
<th>%LOSS</th>
<th>Chamber Set Pt</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:02:10</td>
<td>540°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample Weight: 1274g</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Tested by Mix Type Sample ID Sample ID

Time: 15:02:10 Date: 2-14-10

Furnace chamber temperature set point

Calibrated Asphalt Cnt 6.12%

34 531 80.8 6.34
33 533 80.8 6.34
32 537 80.6 6.34
31 540 80.8 6.32
30 545 80.3 6.29
29 549 79.6 6.24
28 552 78.5 6.16
27 555 77.3 6.06
26 558 75.8 5.94
3 444 1.7 0.13
3 441 1.2 0.09
3 445 0.7 0.05

Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Chamber Dimensions inches (cm)</th>
<th>Overall Dimensions inches (cm)</th>
<th>Weight lbs (kg)</th>
<th>Volts (phase)</th>
<th>Amps</th>
<th>Watts</th>
<th>Temp Range (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F85930*</td>
<td>14 x 14 x 14 (35.5 x 35.5 x 35.5)</td>
<td>21.75 x 36.75 x 25.75 (55.2 x 93.3 x 65.4)</td>
<td>280 (127)</td>
<td>240 (1)</td>
<td>20</td>
<td>4879/6379</td>
<td>200-650</td>
</tr>
<tr>
<td>F85938*</td>
<td>208 (1)</td>
<td>23</td>
<td>5757</td>
<td>200-650</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>F85930-33**</td>
<td>208 (1)</td>
<td>23</td>
<td>4879/6379</td>
<td>200-650</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| AY1087X1 | 4 baskets, 2 trays, 2 covers, handle, cooling cage, insulated plate, gloves, face shield, 4 rolls of printer tape, balance calibration plate and anderol oil

For more information or to place an order, contact your sales representative:

[Name]
[Phone]
[Email]

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