STANDARDS
ASTM D 4530, D 189, ISO 10370, IP 398 and related methods.

SCOPE
This test method, equivalent to the Conradson Carbon Residue test, covers the determination of the carbon residue amount formed after evaporation and pyrolysis of petroleum materials under certain conditions and is intended to provide some indications of the relative coke forming tendency of such materials.
NMC 445 is an automated carbon residue tester developed by Normalab. Normalab has been designing and manufacturing petroleum testing instruments and glassware since 1963.

**SPECIFICATIONS**

- Fully automatic calculation of % carbon residue or ash (required balance)
- Quick verification of nitrogen flow rate on front panel
- Automatic controlled atmosphere into the furnace
- Test reports including initial weight and results
- **Maximum test temperature**: 775°C
- 2 pre-set methods + 18 additional ones with 4 heating segments each
- Automatic nitrogen flow rate switch
- Quick access to calibration parameters
- Data storage: 200 results

**APPLICATION**

- Non volatile petroleum
- Crude
- Oils
- 10% distillation residue

« IMPROVEMENT FOR BETTER PERFORMANCE »
ACCESSORIES

Delivered in standard with the necessary accessories to run a test, you can complete your device with:

- Small vials
- Medium vials
- Larger vials may be used for samples that are expected to yield residues <0.10% (m/m)
- Porcelain crucibles for ash test
- 12 places vial holders (small and medium)
- 6 places vial holders (large)
- 7 places vial holders (4 small and 3 large)

ANALYTICAL BALANCE

For automatic calculation of ash or carbon residue percentage, an analytical balance must be ordered with the device. The balance can be connected to record data.

- Weighing up to 120g
- Resolution 0.1mg

EASY CONFIGURATION

Delivered ready to use, our NMC 445 is user-friendly with its digital screen and the quick access keypad. You can easily program the parameters. The integrated software allows you:

- Transfer the select result on local printer
- Table configuration
**Fully automated model of carbon residue determination**

**NMC 445**
heats under an inert atmosphere in a controlled manner for a specific time. It gives the detailed test report and the calculated carbon residue and ash test.

### 41030

**Scope of delivery:**
NMC 445 is delivered ready to use:
- 12 x 2 ml sample vials (P/N 41001)
- 6 x 16 ml sample vials (P/N 41002)
- 3 vial holders: large, small and mixed (P/N 41005, P/N 41006, P/N 41007)
- Cleaning cable (P/N 41045)
- Hook for safe hot lid manipulation (P/N 41008)
- Ticket printer (P/N 40386)

Gas connection necessary

**Site requirements:**
- Power supply: 230 V - 50/60 Hz - 16 A
- Dimension: (W) 430 x (D) 630 x (H) 480 mm
- Weight: 35 kg
- Air filtered and Nitrogen purity 99,998%: 2.5 bar max

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**SUMMARY**

<table>
<thead>
<tr>
<th>Ambient temperature of use</th>
<th>15 to 30 °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furnace temperature range</td>
<td>0 to 775 °C</td>
</tr>
<tr>
<td>Furnace temperature sensor</td>
<td>Thermocouple K</td>
</tr>
<tr>
<td>Cooling of the furnace</td>
<td>Accelerate by internal turbine at 500 °C</td>
</tr>
<tr>
<td>Safety Stop probe furnace</td>
<td>Program between 600°C and 900°C</td>
</tr>
<tr>
<td>Temperature measurement resolution</td>
<td>0.1 °C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature safety</th>
<th>By regulated separate thermocouple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum gas pressure</td>
<td>2.5 bars (250 kPa)</td>
</tr>
<tr>
<td>Minimum gas Pressure</td>
<td>1 bar (100 kPa)</td>
</tr>
<tr>
<td>Safeguarded results</td>
<td>99 results</td>
</tr>
<tr>
<td>Number of programs</td>
<td>18 programmable with 2 fixed programs</td>
</tr>
</tbody>
</table>

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