

# DIN EN 17155:2018-09 (E)

Liquid petroleum products - Determination of indicated cetane number (ICN) of middle distillate fuels - Primary reference fuels calibration method using a constant volume combustion chamber

---

<b>Contents</b>	<b>Page</b>
European foreword.....	4
Introduction .....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions .....	6
4 Principle .....	8
5 Reagents and materials.....	8
6 Apparatus.....	10
7 Sampling.....	11
8 Sample handling and preparation .....	11
9 Apparatus installation.....	11
10 Preparation of apparatus.....	11
10.1 System start-up and warm-up .....	11
10.2 Standard operating and test conditions .....	12
11 Calibration, verification and quality control.....	12
11.1 General.....	12
11.2 PRF Calibration .....	12
11.3 Apparatus verification .....	13
11.4 Quality control (QC) .....	13
12 Test procedure.....	14
13 Calculation .....	14
14 Expression of results.....	14
15 Precision.....	15
15.1 General.....	15
15.2 Repeatability.....	16
15.3 Reproducibility .....	16
16 Test report.....	16
Annex A (normative) Combustion analyser with auto-sampler description.....	17
A.1 General.....	17
A.2 Apparatus description.....	17
A.2.1 Combustion chamber.....	17
A.2.2 Fuel injection system .....	17
A.2.3 Waste container.....	18
A.2.4 Coolant system .....	19
A.2.5 Combustion Charge Air and exhaust system.....	19
A.2.6 Automatic carousel.....	20

<b>A.3</b>	<b>Control and data acquisition .....</b>	<b>20</b>
	<b>Annex B (normative) Operation details in support of the standard test procedure.....</b>	<b>21</b>
<b>B.1</b>	<b>General .....</b>	<b>21</b>
<b>B.2</b>	<b>Test sequence after the combustion chamber is at a stable temperature.....</b>	<b>21</b>
<b>B.3</b>	<b>Unit shutdown.....</b>	<b>22</b>
	<b>Annex C (informative) Preparation of calibration and verification fluids.....</b>	<b>23</b>
<b>C.1</b>	<b>General .....</b>	<b>23</b>
<b>C.2</b>	<b>Checks .....</b>	<b>23</b>
<b>C.3</b>	<b>Blending.....</b>	<b>23</b>
<b>C.4</b>	<b>Recording.....</b>	<b>24</b>
	<b>Bibliography .....</b>	<b>25</b>