

DIN EN ISO 9556:2025-12 (E)

Steel and iron - Determination of total carbon content - Infrared absorption method after combustion in an induction furnace (ISO 9556:2025)

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Principle	1
5	Reagents	1
6	Apparatus	2
7	Sampling and sample preparation	3
8	Procedure	3
8.1	General operating instructions	3
8.2	Test portion	3
8.3	Blank test	4
8.4	Determination	4
8.5	Establishment of the calibration curve	4
8.5.1	Samples having carbon contents between 0,003 % (mass fraction) and 0,01 % (mass fraction)	4
8.5.2	Samples having carbon contents between 0,01 % (mass fraction) and 0,1 % (mass fraction)	5
8.5.3	Samples having carbon contents between 0,1 % (mass fraction) and 1,0 % (mass fraction)	6
8.5.4	Samples having carbon contents between 1,0 % (mass fraction) and 4,5 % (mass fraction)	6
9	Expression of results	7
9.1	Method of calculation	7
9.2	Precision	7
10	Test report	8
Annex A (informative) Additional information on the international precision tests		9
Annex B (informative) Graphical representation of precision data		11
Annex C (informative) Features of commercial high-frequency induction furnaces and infrared carbon analysers		12
Bibliography		14