

List of accredited test methodes

according to DIN EN ISO/IEC 17025:2018

Stand: 29.08.2025

Test area 1: Isotope Ratio Mass Spectrometry	Test method	Description	Status of the test method
1.1 Determination of the isotope ratio for the assessment of regional origin / origin / identity by means of <u>Isotope ratio Mass spectrometry (IRMS)</u>	AIL-1.1a (2015-02)	$^{18}\text{O}/^{16}\text{O}$ in alcoholic beverages (<40Vol% alcohol) <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.1b (2015-02)	$^{18}\text{O}/^{16}\text{O}$ und D/H in water/tissue fluid <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.1c (2015-02)	$^{18}\text{O}/^{16}\text{O}$, D/H, $^{13}\text{C}/^{12}\text{C}$, $^{15}\text{N}/^{14}\text{N}$ and $^{34}\text{S}/^{32}\text{S}$ in agricultural commodities and products, water-free biomass, chemicals, foodstuffs, spices, luxury foodstuffs, pesticides, consumer products and wood <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.1d (2015-02)	$^{13}\text{C}/^{12}\text{C}$ in agricultural commodities and products for the assessment of the plant species (photosynthesis) <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
1.2 Determination of the isotope ratio for the assessment of nutrition / fertilization by means of mass spectrometry	AIL-1.2a (2015-02)	$^{15}\text{N}/^{14}\text{N}$ in agricultural commodities and fertilizer <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.2b (2015-02)	$^{13}\text{C}/^{12}\text{C}$ in agricultural commodities for the assessment of greenhouse cultivation <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.2c (2015-02)	$^{13}\text{C}/^{12}\text{C}$ and $^{15}\text{N}/^{14}\text{N}$ in feedstuffs and animal agricultural products <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.2d (2020-09)	$^{15}\text{N}/^{14}\text{N}$ in food <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
1.3 Determination of the isotope ratio for the assessment of tampering by means of mass spectrometry	AIL-1.3a (2015-02)	$^{13}\text{C}/^{12}\text{C}$ for assessment of added C4 sugars in juices and honey <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.3b (2015-02)	$^{13}\text{C}/^{12}\text{C}$ and D/H(I) in the ethanol of alcoholic beverages for assessment of chaptalization/fermentation basis <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.3c (2015-02)	$^{13}\text{C}/^{12}\text{C}$ in vanilla products for assessment of the naturalness of vanilla aromas <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.3d (2015-02)	$^{13}\text{C}/^{12}\text{C}$ in carbon dioxide in sparkling wine, semi-sparkling wine and beer <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.3e (2015-02)	$^{13}\text{C}/^{12}\text{C}$, D/H and $^{18}\text{O}/^{16}\text{O}$ in vinegar for the assessment of the fermentation basis <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.3f (2020-09)	$^{13}\text{C}/^{12}\text{C}$ and D/H(I) in ethanol after fermentation for assessment of chaptalization/fermentation basis <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.3g (2021-03)	$^{13}\text{C}/^{12}\text{C}$ in carbon dioxide in mineral water <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>
	AIL-1.3h (2021-03)	D/H in vanilla products for assessment of the naturalness of vanilla aromas/origin of vanillin <u>with IRMS</u>	flexible accredited <u>[Flex C]</u>

List of accredited test methodes

according to DIN EN ISO/IEC 17025:2018

Test area 2: Liquid Scintillation Spectrometry (<u>LSC</u>)	Test method	Description	Status of the test method
2.1 Determination of C14 activity in solids, fluids, and gases by means of liquid scintillation spectrometry with the low level counter method (<u>LSC</u>)	AIL-2.1a (2015-02)	14C activity for determination of the recent proportion in consumer products, combustibles, flavourings, flue gas, chemicals, lubricants and synthetic materials <u>with LSC</u>	flexible accredited <u>[Flex C]</u>
	AIL-2.1b (2020-09)	14C activity for assessment of CO2 from carbonic acid <u>with LSC</u>	flexible accredited <u>[Flex C]</u>
	AIL-2.1c (2021-03)	14C activity for determination of the recent proportion in food <u>with LSC</u>	flexible accredited <u>[Flex C]</u>
	DIN EN ISO 21644 2021-07	Solid recovered fuels - Methods for the determination of biomass content (annex A)	flexible accredited <u>[Flex C]</u>
	ISO 16620-2 2019-10	Plastics – Biobased content – Part 2: Determination of biobased carbon content (Method A)	<u>flexible accredited</u> <u>[Flex C]</u>
	DIN EN 16640 2017-08	Bio-based products - Bio-based carbon content - Determination of the bio-based carbon content using the radiocarbon method (annex C)	<u>flexible accredited</u> <u>[Flex C]</u>

Test area 3: Cavity Ring Down Spectroscopy (<u>CRDS</u>)	Test method	Description	Status of the test method
3.1 Procedures for the analysis of regional origin/origin/identity by means of laser technology (<u>CRDS</u>)	AIL-3.1a (2015-02)	D/H-Isotope analysis in water <u>with CRDS</u>	accredited
	AIL-3.1b (2021-08)	¹⁸ O/ ¹⁶ O-Isotope analysis in water <u>with CRDS</u>	accredited

The testing laboratory is permitted to modify, further develop, and develop new test methods within the test areas marked [Flex C] without the need for prior notification and approval by DAkkS.

Abbreviations used:

AIL-xx Internal procedure of Agroisolib GmbH
 DIN Deutsches Institut für Normung e. V. (German Institute for Standardisation)
 EN European Standard
 IEC International Electrotechnical Commission
 ISO International Organisation for Standardisation