

MINISTRY OF ECONOMY

STATE ENTERPRISE "IVANO-FRANKIVSK SCIENTIFIC AND PRODUCTION CENTER FOR
STANDARDIZATION, METROLOGY AND CERTIFICATION"

The Testing Center is accredited for technical competence and independence,
Accreditation Certificate № 20098 of June 20, 2024

Address: 127 Vovchynetska Street,
76006 Ivano-Frankivsk, phone: 535640

"APPROVED"
by Head of the Testing Center
/signature/ Halyna HURYK
on October 03, 2025
*Seal: Ivano-Frankivsk Scientific and Production Center
for Standardization, Metrology and Certification*

TEST REPORT No 3726

Sample: White crystal sugar of category I, made of sugar beets,
date of manufacture: September 18, 2025 to September 24, 2025, batch size – 6,000 tons

RD (Regulatory Document) for the product: DSTU 4623:2023 'Sugar. Technical Specifications',
HN 6.6.1.1-130-2006, DSanPIN 8.8.1.2.3.4-000-2001, additional manufacturer's requirements

Customer: CAB SE "LVIVSTANDARTMETROLOGIA"

Manufacturer: RADEKHIVSKIY SUGAR LLC, 1 Zavodska St., Khorostkiv, Chortkiv District,
Ternopil Region

Sampling date: 24Sep2025

Sample receipt date: 26Sep2025

Sample description and identification: The sample is packed in zip-lock bags, identified based on
appearance indicators.

Sample condition: Satisfactory for testing. **Sample quantity:** 2.0 kg

Test date(s): 29Sep 2025 - 03Oct 2025

Test temperature: 20.1-20.0°C

Test equipment: Spectrometer ICAP 7200 Duo, beta-radiation energy spectrometer СЕБ(СЕВ)-
01-150, balance Radwag PS 510.R1, microplate photometer Multiscan FC,
drying cabinet ІІСС(ShSS)-80 p, electronic balance TBE-0.21-0.001, pH meter
AD 1030, dry air thermostat TC-80, laboratory electronic balance KB 360-3N,
adjustable volume pipette Sartorius, polarimeter CY(SU)-4, spectrophotometer
ULAB 102, ion meter И-160 МИ (Y-160 MY), [chromatograph] ЦВЕТ
(TSVET) 500.

Additional Information: Sampled by the representative of the Conformity Assessment Department
Nadiia Lazar in the presence of the Customer's representative Valentyna
Pliachenko. The Customer warrants that the sampling was carried out
according to the RD for the product.

Note: - the test report applies to the tested sample only;
- the test report is not subject to full and partial reprint, or other forms of reproduction without permission
of the Testing Center.



Test Results Table:

| Name of indicator, units of measurement | Indicator value | | RD for test methods | Uncertainty of measure- ment* |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------|-------------------------------------|
| | According to RD | In fact | | |
| Organoleptic Indicators | | | | |
| Appearance | White, clean, without stains and impurities. A yellow tint is allowed for semi-white sugar. Crystal sugar should be loose, without lumps. | Conforms | DSTU 4624:2006 | - |
| Taste and smell | Sweet, without foreign smell and off-flavor, both in dry sugar and in its aqueous solution. | Conforms | DSTU 4624:2006 | - |
| Purity of the solution | The sugar solution must be clear, without insoluble sediment or mechanical and other impurities. | Conforms | DSTU 4624:2006 | - |
| Physical and Chemical Indicators | | | | |
| Polarization, %, no less than | 99.7 | 99.87 | DSTU 3661-2023 | - |
| Invert sugar, %, no more than: to the product amount | 0.04 | 0.020 | DSTU 3945-2023 | - |
| Moisture (loss on drying), %, to the product amount, no more than | 0.06 | 0.05 | DSTU 3659-2023 | - |
| Conductivity ash (in dry matter), no more than, % | 0.027 | 0.014 | DSTU 4872:2023 | - |
| Chromaticity in solution, no more than, ICUMSA units | 45.0 | 40 | DSTU 4866:2007 | - |
| Turbidity, no more than, ICUMSA units | 20.0 | 10.2 | DSTU 4866:2007 | - |
| Iron impurities content, % to the product amount, no more than | 0.0003 | 0.0002 | DSTU 4244:2003 | - |
| Starch content, mg/kg, no more than | 15.0 | less than 1.0 | DSTU 4865:2007 | - |
| pH of the sugar aqueous solution, units | 4-8.2 | 7.1 | Manual 'Laboratory Tutorial for Sugar Refineries Employees' | - |
| Toxic Elements | | | | |
| Lead, mg/kg, no more than | 0.1 | less than 0.008 | DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023 | - |
| Cadmium, mg/kg, no more than | 0.05 | 0.013 | DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023 | - |
| Arsenic, mg/kg, no more than | 0.1 | less than 0.001 | DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023 | - |
| Mercury, mg/kg, no more than | 0.01 | less than 0.001 | DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023 | - |
| Copper, mg/kg, no more than | 1.0 | less than 0.001 | DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023 | - |
| Iron, mg/kg, no more than | 1.0 | 0.335 | DSTU EN ISO 11885:2019 MG TC-56:2023 of 04Aug2023 | - |
| Sulphur dioxide content, mg/kg, no more than | 6.0 | less than 0.01 | DSTU 4322:2004 | - |



| Radiological Indicators | | | | |
|--------------------------------------------------------------------------------|---------------------|-------------------|----------------------------------------------------------|------|
| Cesium-137 specific activity, Bq/kg, no more than | 50.0 | 8.6 | MG MoH 446 of 11Aug2008 MP of RDPE 'AKP' of 15Jun1998 | 3.4 |
| Strontium-90 specific activity, Bq/kg, no more than | 30.0 | 7.4 | MG MoH 446 of 11Aug2008 MP of RDPE 'AKP' of 15Jun1998 | 2.98 |
| Conformity indicator B | - | 0.42 | HN 6.6.1.1.-130-2006 Par. 2.7 | - |
| Absolute error UB | ≤0.4 | 0.13 | HN 6.6.1.1.-130-2006 Par. 2.8 | - |
| Acceptance criterion, B+0.6UB | ≤1.0 | 0.50 | HN 6.6.1.1.-130-2006 Par. 2.9 | - |
| Pesticides | | | | |
| Residue of DDT, mg/kg, no more than | 0.005 | less than 0.001 | DSTU EN 12393-1.2.3:2003 | - |
| Residue of HCH, mg/kg, no more than | 0.005 | less than 0.001 | DSTU EN 12393-1.2.3:2003 | - |
| Mass fraction of hexachlorane, mg/kg, no more than | 0.005 | less than 0.001 | DSTU EN 12393-1.2.3:2003 | - |
| Microbiological Indicators | | | | |
| QMAFAnM, CFU in 10 g, no more than | 2.0x10 ² | 2x10 ¹ | DSTU 8446:2015 | - |
| Molds, CFU in 10 g, no more than | 1.0x10 | less than 10 | DSTU 8447:2015 | - |
| Yeast, CFU in 10 g, no more than | 1.0x10 | less than 10 | DSTU 8447:2015 | - |
| Bacteria of the E. coli group (coliforms) in 1g | Not permitted | Not detected | GOST 30518-97 | - |
| Pathogenic microorganisms, including bacteria of the genus Salmonella, in 25 g | Not permitted | Not detected | DSTU EN 12824:2004 | - |
| Listeria monocytogenes, CFU in 1 g | Not permitted | Not detected | DSTU ISO 11290-1:2003 | - |

End of the test results table.

*At the Customer's request,

**RD is not included in the accreditation scope.

| | | | |
|-----------------------------|---------------------------|-------------|------------------------------|
| Responsible executors: | Leading Engineer | /signature/ | Halyna HURYK |
| | Leading Engineer | /signature/ | Uliana STAMBULSKA |
| | I Category Engineer | /signature/ | Khrystyna-Nadiia MAISTRYSHYN |
| | I Category Microbiologist | /signature/ | Tetiana ZLYDEN |
| | II Category Engineer | /signature/ | Silviia KHODAN |
| The Report was prepared by: | I Category Microbiologist | /signature/ | Tetiana ZLYDEN |

End of the test report.

F01.PTs 7.8 version 3 of 2023

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This translation has been performed by me, a certified translator Lyudmyla Burtnyk

The translation corresponds to the original.

October 20, 2025

"Halyskyi Perekladach" Foreign Languages Agency

26 Zamarstynivska St., Lviv 79019, Ukraine

Tel. + 38 096 566 31 77

e-mail: office@halperekklad.com.ua

