



**PRODUCT QUALITY
SPECIFICATION SHEET
No. 20**

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ORIGINAL

Product name: LU – 1451 – 1
Acetylated oxidised starch E 1451

Non-GMO declaration: The product is not derived from or produced using genetically modified organisms
Allergen statement: The product does not contain any allergenic ingredients
Statement of origin: Poland

A. Organoleptic testing:


No.	Name of property:	Requirements:	Test method:
1.	Colour	<i>White to light cream</i>	Instruction No. 01
2.	Odour	<i>Typical with a delicate scent of vinegar</i>	Instruction No. 03

B. Physical and chemical requirements:

No.	Name of property:	Requirements:	Test method:
1.	Mechanical impurities	<i>unacceptable</i>	Instruction No. 05
2.	Moisture content	<i>max. 20%</i>	Instruction No. 08
3.	pH value	<i>5,5 – 7,5</i>	Instruction No. 09
4.	SO ₂ content	<i>max. 10 mg/kg</i>	Instruction No. 11
5.	Acetyl groups content	<i>max. 2,0%</i>	Instruction No. 27
6.	Carboxyl groups content	<i>max 1,3% in dry matter</i>	Instruction No. 26
7.	Viscosity of 10% paste at 80°C	<i>3 – 8 mPas</i>	Instruction No. 32
8.	Ash content	<i>max. 1,0% in dry matter</i>	Instruction No. 12
9.	Metal content: - arsenic - lead - mercury	<i>max. 1,0 mg/kg max. 2,0 mg/kg max. 0,1 mg/kg</i>	As per the standards used in accredited laboratories

C. Microbiological requirements:

No.	Name of property:	Requirements:	Test method:
1.	Aerobic bacteria	<i>max. 10.000 cfu/1g</i>	As per ISO 4833
2.	Coliform bacteria	<i>0 cfu/0,1g</i>	As per ISO 4832
3.	<i>Salmonella</i> spp.	<i>cfu/25, Absent</i>	As per ISO 6579
4.	<i>Staphylococcus aureus</i>	<i>cfu/0,1, Absent</i>	As per ISO 6888
5.	Yeast and mould	<i>max. 500 cfu/1g</i>	As per ISO 21527
6.	<i>Bacillus cereus</i>	<i>max. 10 cfu/1g</i>	As per ISO 7932

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D. Packaging, storage conditions, transport requirements:

No.	Name of property:	Requirements:
1.	Packaging type	<i>Multilayer vented paper bags or flexible big-bag containers. Unit packaging must be approved for food contact</i>
2.	Net content	<i>25, 800 or 1000kg</i>
3.	Labelling	<i>Consistent with the laws and regulations in force</i>
4.	Storage conditions	<i>Dry, clean and well-ventilated facilities without foreign odours, protected against rodents</i>
5.	Shelf life	<i>24 months of the manufacture date when stored in original packaging</i>
6.	Transport requirements	<i>Clean and dry means of transport ensuring appropriate protection of the product against damage and moisture. The product is not classified as hazardous within the meaning of transport regulations</i>

The new document enters into force on the date of its approval

Name of document	Withdrawn document		Introduced document	
	Issue No.	Date of issue	Issue No.	Date of issue
Quality specification: LU – 1451 – 1 Acetylated oxidised starch E 1451	02	July 14, 2014	03	January 01, 2018

	Full name	Title	Date	Signature
Prepared by	Angelika Siebert	Technologist	<i>02.01.2018</i>	<i>Sell</i>
Verified by	Małgorzata Kozielska	Quality Control Manager	<i>02. 01. 2018</i>	<i>M. Kowielke</i>
Approved by	Waldemar Kasperski	President of the Board of WPPZ S.A.	<i>03. 01. 2018</i>	<i>[Signature]</i>