

Institute of Mining Technology

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LABORATORY OF MATERIAL ENGINEERING AND ENVIRONMENT





AB 910

TEST REPORT No. 687/DLS/2020

Testing the migration of certain elements from the sample of birch plywood manufactured by Paged Pisz Sp. z o.o., delivered for testing by PAGED LabTech Sp. z o.o

Orderer:

PAGED LabTech Sp. z o.o.

Kwiatowa 1

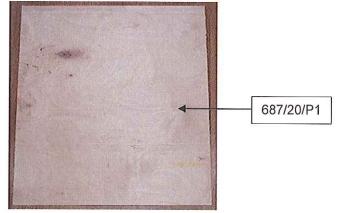
12-200 Pisz, Poland

Project

UP/DLS-27796/OR

No.:

Name of tested object:	Sample of birch plywood (12 mm) manufactured
Orderer markings:	by Paged Pisz Sp. z o.o.
Number of sample, according to the R-DLS/7:	687/20/P1



Date of delivery of the object for testing: Date of beginning / completion of tests: Place of testing:

16.12.2020

17.12.2020 / 30.12.2020

Laboratory of Material Engineering and Environment

Sample number	Statement of conformity/non-conformity with the requirements							
	PN-EN 71-3:2019-07 Standard: "Safety of toys. Migration of certain elements"							
687/20/P1	Limit values of elements migration: Category III: Al \leq 70 000 mg/kg (Al \leq 28 130 mg/kg*), Sb \leq 560 mg/kg, As \leq 47 mg/kg, Ba \leq 18 750 mg/kg, B \leq 15 000 mg/ kg, Cd \leq 17 mg/kg, Cr (III) \leq 460 mg/kg**, Cr (VI) \leq 0.053 mg/kg, Co \leq 130 mg/kg, Cu \leq 7 700 mg/kg, Pb \leq 23 mg/kg, Mn \leq 15 000 mg/kg, Hg \leq 94 mg/kg, Ni \leq 930 mg/kg, Se \leq 460 mg/kg, Sr \leq 56 000 mg/kg, Sn \leq 180 000 mg/kg, Zn \leq 46 000 mg/kg Organic tin:	+						

symbol: "+"- sample meets the requirements, "+ conditionally"- sample meets the requirements conditionally,
"-" - sample does not meet the requirements, "- conditionally"- sample does not meet the requirements conditionally.

NOTE: Statement of test results conformity with the requirements is based on a confidence level of 95% for the expanded uncertainty of measurement results on which the decision of conformity is based.

- * The limit is obligatory from 20/05/2021
- **- Migration of Cr (III) was assessed according to PN-EN 71-3: 2019-07 Standard basing on migration of total chromium, Cr_{total} '- Migration of organic tin compounds was assessed according to PN-EN 71-3: 2019-07 Standard, basing on migration of total tin, Sn_{total}

Leader of testing team:

Bibianna Bartoszek, M. Sc. Eng.

South Set (signature/



TEST REPORT No. 687/DLS/2020

Page 2 of 3

Collaborating team:	Katarzyna Mężyk, M.Sc. Eng. /name/	
Authorized by:	Bożena Rakwic, Ph. D. Eng. /name/	Ralum /signature/

Approved by

Kierownik Laboratorium Inżynierii Materiałowej i Środowiska

Gliwice, 30.12.2020

dr hab /signature and stamp/wicz-Bylina Profesor ITG KOMAG

TEST REPORT INCULDES ONLY THE RESULTS, WHICH ARE RELATED TO THE TESTED OBJECT DELIVERED BY THE ORDERER KOMAG TAKES AN OBLIGATION TO KEEP IN SECRET ALL TEST RESULTS AND THE RESULTS WILL NOT BE PUBLISHED WITHOUT A PERMISSION OF ORDERER THIS WILL BE NOT IN FORCE IF LAW REGULATIONS ARE DIFFERENT IT CAN NOT BE COPIED WITHOUT A WRITTEN APPROVAL OTHERWISE AS AN ENTIRE DOCUMENT REPORT IS A LABORATORY PROPERTY AND ANY CHANGES CAN NOT BE MADE WITHOUT AUTHORS PERMISSION.



TEST REPORT No. 687/DLS/2020

Page 3 of 3

Description of the samples

Birch plywood material sample manufactured by Paged Pisz Sp. z o.o., was taken and delivered for testing by the Orderer: PAGED LabTech Sp. z o.o., Kwiatowa 1, 12-200 Pisz, Poland.

Scope and methods of testing

Item	Tested parameters	Testing method	Testing procedure and Standard			
1.	Migration: Al, Sb, As, Ba, B, Cd, Cr _{total} , Co, Cu, Pb, Mn, Hg, Ni, Se, Sr, Sn _{total} , Zn	The inductively coupled plasma mass spectrometry (ICP-MS) method	PB-DLS/31, 22 nd edition; 2020 PB-DLS/32, 25 th edition; 2020 PN-EN 71-3:2019-07			
	Migration: Cr (VI)	High-performance liquid chromatography with inductively coupled plasma mass spectrometry (HPLC-ICP-MS) method	_ Standard			

Test Results

Item	Sample number	Migration of certain elements [mg/kg]									
	Category III:										
1.	687/20/P1	Al	U	Sb	U	As	U	Ва	U	В	U
		< 15 000	1	< 200	_	< 20	-	< 10 000	-	< 9 000	_
		Cd	U	Cr _{total}	U	Co	U	Cu	Ų	Zn	U
		< 9.0	-	0.328	±0.034	< 60	-	< 3 000	-	< 20 000	-
		Pb	U	Mn	U	Hg	U	Ni	U	Se	U
		< 10	-	< 7 000	-	< 40	_	< 400	-	< 100	-
		Sr	J	Sn _{total}	U	Cr (VI)	U				
		< 20 000	-	< 6.0	-	< 0.030	-				

The results and their uncertainty refer only to the tested sample and not to the product batch/substance/material the sample was taken from.

Rules for taking decisions on compliance/ not compliance with the requirements

According to ISO/IEC Guide 98-4:2012 "Uncertainty of measurement. Part 4: Role of measurement uncertainty in conformity assessment" and ILAC-G8:09/2019 guidelines: "Guidelines on Decision Rules and Statements of Conformity":

- COMPLIANCE WITH THE REQUIREMENTS is stated when the measurement result/test result plus/minus expanded uncertainty at confidence level 95% and coverage factor k = 2, is within the acceptance interval defined in regulations / standards by the accepted value/values. Risk of wrong acceptation is below 2.5%
- 2. CONDITIONAL COMPLIANCE WITH THE REQUIREMENTS is stated when the measurement result/test result is within the acceptance interval
- edined in regulations / standards by the accepted value/values and expanded uncertainty at confidence level 95% and coverage factor k = 2 exceeds this interval. Risk of wrong acceptation is up to 50%.

 NON-COMPLIANCE WITH THE REQUIREMENTS is stated when the measurement result/test result plus/minus expanded uncertainty at confidence level 95% and coverage factor k = 2, is within the acceptance interval defined in regulations / standards by the accepted value/values. Risk of wrong rejection is below 2.5%.

CONDITIONAL NON-COMPLIANCE WITH THE REQUIREMENTS is stated when the measurement result/test result is beyond the acceptance interval defined in regulations / standards by the accepted value/values and the expanded uncertainty at confidence level 95% and coverage factor k = 2 is within this interval. Risk of wrong rejection is up to 50%

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- END OF THE REPORT -

symbol:
"-" in uncertainty "U" column – there is no uncertainty value as the test result is below/above bottom/upper limit of the measuring range for the symbol of the measuring range for the symbol of the measuring range. Note: measurements uncertainty U is an expanded uncertainty at confidence level 95% and coverage factor k = 2, according to the PO-DLS/07 general procedure.