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TEST REPORT No. 300/DLS/2023

Testing material samples of sound deadening mats, delivered for testing by PIIRSTOCK OÜ in the scope of polycyclic aromatic hydrocarbons (PAHs) content

Orderer: PIIRSTOCK OÜ
Nelgi tee 23
74001 Viimsi
Estonia

Project No.: UP/DLS- 31833/OR

Name of tested object:	Material samples of sound deadening mats
Orderer markings:	COMFORT MAT VESPA 2,5 mm COMFORT MAT INTEGRA 6 mm
Sample number, according to the R-DLS/7:	300/23/P1 - Material sample of sound deadening mat – Vespa 2,5 mm 300/23/P2 - Material sample of sound deadening mat – Integra 6 mm

Date of delivery of the object for testing: 29.08.2023

Date of beginning / completion of tests: 30.08.2023 / 31.08.2023

Place of testing: Laboratory of Material Engineering and Environment

Sample number	Confirmation of conformity/non-conformity the test results with the requirements	
Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the awarding the GS mark - Specification pursuant to article 21(1) no. 3 of the Product Safety Act (ProdSG) – AfPS GS 2019:01 PAK, Federal Institute for Occupational Safety and Health		
300/23/P1	**Category 2a** Content of each of the following PAHs: chrysene, benzo[a]anthracene, benzo[b]fluoranthene benzo[k]fluoranthene, benzo[j]fluoranthene, benzo[a]pyrene, benzo[e]pyrene, indeno[1,2,3-c,d]pyrene, benzo[g,h,i]perylene, dibenzo[a,h]anthracene, is below 0.2 mg/kg of the material with admixture of PAH	+
300/23/P2	Total content of the following PAHs:, phenanthrene, anthracene, fluoranthene, pyrene below 5 mg/kg of the material with admixture of PAH Content of naphthalene below 2 mg/kg of the material with admixture of PAH Total content of 15 PAH below 5 mg/kg of the material with admixture of PAH	+

Sample number	Confirmation of conformity/non-conformity the test results with the requirements	
Testing and assessment of polycyclic aromatic hydrocarbons (PAHs) in the awarding the GS mark - Specification pursuant to article 21(1) no. 3 of the Product Safety Act (ProdSG) – AfPS GS 2019:01 PAK, Federal Institute for Occupational Safety and Health		
300/23/P1	**Category 2b** Content of each of the following PAHs: chrysene, benzo[a]anthracene, benzo[b]fluoranthene benzo[k]fluoranthene, benzo[j]fluoranthene, benzo[a]pyrene, benzo[e]pyrene, indeno[1,2,3-c,d]pyrene, benzo[g,h,i]perylene, dibenzo[a,h]anthracene, is below 0.5 mg/kg of the material with admixture of PAH	+
300/23/P2	Total content of the following PAHs:, phenanthrene, anthracene, fluoranthene, pyrene below 10 mg/kg of the material with admixture of PAH Content of naphthalene below 2 mg/kg of the material with admixture of PAH Total content of 15 PAH below 10 mg/kg of the material with admixture of PAH	+
300/23/P1	**Category 3a** Content of each of the following PAHs: chrysene, benzo[a]anthracene, benzo[b]fluoranthene benzo[k]fluoranthene, benzo[j]fluoranthene, benzo[a]pyrene, benzo[e]pyrene, indeno[1,2,3-c,d]pyrene, benzo[g,h,i]perylene, dibenzo[a,h]anthracene, is below 0.5 mg/kg of the material with admixture of PAH	+
300/23/P2	Total content of the following PAHs:, phenanthrene, anthracene, fluoranthene, pyrene below 20 mg/kg of the material with admixture of PAH Content of naphthalene below 10 mg/kg of the material with admixture of PAH Total content of 15 PAH below 20 mg/kg of the material with admixture of PAH	+
300/23/P1	**Category 3b** Content of each of the following PAHs: chrysene, benzo[a]anthracene, benzo[b]fluoranthene benzo[k]fluoranthene, benzo[j]fluoranthene, benzo[a]pyrene, benzo[e]pyrene, indeno[1,2,3-c,d]pyrene, benzo[g,h,i]perylene, dibenzo[a,h]anthracene, is below 1 mg/kg of the material with admixture of PAH	+
300/23/P2	Total content of the following PAHs: phenanthrene, anthracene, fluoranthene, pyrene below 50 mg/kg of the material with admixture of PAH Content of naphthalene below 10 mg/kg of the material with admixture of PAH Total content of 15 PAH below 50 mg/kg of the material with admixture of PAH	+
European Parliament and Council (EC) Regulation No. 1907/2006 for registration, assessment and authorization of chemicals (REACH) (OJ L 396, 30.12.2006, p. 1-794 with further amendments)		
300/23/P1	entry 50 paragraph 5 Content of each of the following PAHs: benzo[a]pyrene, benzo[e]pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenzo[a,h]anthracene ≤ 1 mg/kg in relation to the weight of material with admixture of PAH	+
300/23/P2		+
300/23/P1	entry 50 paragraph 6 Content of each of the following PAHs: benzo[a]pyrene, benzo[e]pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenzo[a,h]anthracene ≤ 0,5 mg/kg in relation to the weight of material with admixture of PAH	+
300/23/P2		+
300/23/P1	entry 50 paragraph 9 and paragraph 10 Total content of the following PAHs: benzo[a]pyrene, benzo[e]pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenzo[a,h]anthracene ≤ 20 mg/kg in relation to the weight of material with admixture of PAH	+
300/23/P2		+

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

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.

Leader of testing team: *Hanna Musiolik, M.S.* /name/ /signature/

Authorized by: *Beata Grynkiewicz-Bylina, Ph.D. Eng.*
ITG KOMAG Professor
/name/ /signature/

Approved by
Kierownik Laboratorium
Inżynierii Materiałowej i Środowiska
dr hab. inż. Beata Grynkiewicz-Bylina
/signature and stamp/AG

Gliwice, 31.08.2023

Description of the samples

Material samples of sound deadening mats: COMFORT MAT VESPA 2,5 mm, COMFORT MAT INTEGRA 6 mm.
The samples were taken and delivered for testing by the Orderer PIIRSTOCK OÜ, Estonia.

Scope and methods of testing

Item	Tested parameters	Testing method	Testing procedure and standard
1.	Polycyclic aromatic hydrocarbons (PAHs) content	Gas chromatography method with tandem mass spectrometry (GC-MS/MS)	PB-DLS/38, 8th edition; 2021

Test Results

Item	Sample number	Content PAHs [mg/kg]	
2.	300/23/P1	benzo[a]pyrene	U
		< 0.1	-
		benzo[e]pyrene	U
		< 0.1	-
		benzo[a]anthracene	U
		< 0.1	-
		chrysene	U
		< 0.1	-
		benzo[b]fluoranthene	U
		< 0.1	-
		benzo[j]fluoranthene	U
		< 0.1	-
		benzo[k]fluoranthene	U
		< 0.1	-
		dibenzo[a,h]anthracene	U
		< 0.1	-
		benzo[g,h,i]perylene	U
		< 0.1	-
		indeno(1,2,3-cd)pyrene	U
		< 0.1	-
		phenantrene	U
		< 0.1	-
		pyrene	U
		< 0.1	-
		anthracene	U
		< 0.1	-
		fluoranthene	U
		< 0.1	-
		naphthalene	U
		< 0.1	-
2.	300/23/P2	benzo[a]pyrene	U
		< 0.1	-
		benzo[e]pyrene	U
		< 0.1	-
		benzo[a]anthracene	U
		< 0.1	-
		chrysene	U
		< 0.1	-
		benzo[b]fluoranthene	U
		< 0.1	-
		benzo[j]fluoranthene	U
		< 0.1	-
		benzo[k]fluoranthene	U
		< 0.1	-

Item	Sample number	Content PAHs [mg/kg]	
2.	300/23/P2	dibenzo[a,h]anthracene	U
		< 0.1	-
		benzo[g,h,i]perylene	U
		< 0.1	-
		indeno(1,2,3-cd)pyrene	U
		< 0.1	-
		phenantrene	U
		< 0.1	-
		pyrene	U
		< 0.1	-
		anthracene	U
		< 0.1	-
		fluoranthene	U
		< 0.1	-
		naphthalene	U
		< 0.1	-

symbol:
"-" in uncertainty "U" column – there is no uncertainty value as the test result is below/above bottom/upper limit 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.*

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":

1. ***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. ***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%.*

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-END OF THE REPORT-