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Laboratorium Inżynierii Środowiska  
CENTRALNE LABORATORIUM



AB 550

### TEST REPORT No. 6112/2024

Customer:	Unirubber Sp. z o.o. ul. Zielonka 17, 59-940 Węgliniec				
Sample no.:	6112_1 - 6112_3	Number of samples:	3	Date of receipt:	18.12.2024
Order no.:	zgodnie z ofertą nr 2024/DT_SL/2271		Internal order no.:	SL-24-01732-SLAL-01	
Product tested:	granulate			Page:	1/3

The Laboratory performed analysis according to methods listed below:

Batch test		
Parameter determined	No. of document/norm	Method
Zinc as Zn	PN-EN ISO 17294-2:2024-04	ICP-MS
Cadmium as Cd	PN-EN ISO 17294-2:2024-04	ICP-MS
Lead as Pb	PN-EN ISO 17294-2:2024-04	ICP-MS
Nickiel as Ni	PN-EN ISO 17294-2:2024-04	ICP-MS
Chromium as Cr	PN-EN ISO 17294-2:2024-04	ICP-MS
Mercury as Hg	PN-EN 12846:2012	CVAAS
Arsenic as As	PN-EN ISO 17294-2:2024-04	ICP-MS
Antimony as Sb	PN-EN ISO 17294-2:2024-04	ICP-MS
Copper as Cu	PN-EN ISO 17294-2:2024-04	ICP-MS
Barium as Ba	PN-EN ISO 17294-2:2024-04	ICP-MS
Tin as Sn	PN-EN ISO 17294-2:2024-04	ICP-MS
Selenium as Se	PN-EN ISO 17294-2:2024-04	ICP-MS
Chlorides as Cl <sup>-</sup>	PN-EN ISO 10304-1:2009 + AC 2012	IC-CD
Fluorides as F <sup>-</sup>	PN-EN ISO 10304-1:2009 + AC 2012	IC-CD
Sulphates as SO <sub>4</sub> <sup>2-</sup>	PN-EN ISO 10304-1:2009 + AC 2012	IC-CD
Dissolved organic carbon DOC	PN-EN 1484:1999	IR
Naphthalene	PN-EN ISO 17993:2005	UHPLC-FLD
Anthracene	PN-EN ISO 17993:2005	UHPLC-FLD
Phenanthrene	PN-EN ISO 17993:2005	UHPLC-FLD
Fluoranthene	PN-EN ISO 17993:2005	UHPLC-FLD
Benzo(a)anthracene	PN-EN ISO 17993:2005	UHPLC-FLD
Chrysene	PN-EN ISO 17993:2005	UHPLC-FLD
Benzo(b)fluoranthene	PN-EN ISO 17993:2005	UHPLC-FLD
Benzo(k)fluoranthene	PN-EN ISO 17993:2005	UHPLC-FLD
Benzo(a)pyrene	PN-EN ISO 17993:2005	UHPLC-FLD
Indeno(1,2,3-c,d)pyrene	PN-EN ISO 17993:2005	UHPLC-FLD
Benzo(ghi)perylene	PN-EN ISO 17993:2005	UHPLC-FLD
Benzene	PN-ISO 11423-1:2002	HS-GC-FID
Toluene	PN-ISO 11423-1:2002	HS-GC-FID
o,m,p-xylenes	PN-ISO 11423-1:2002	HS-GC-FID
Ethylbenzene	PN-ISO 11423-1:2002	HS-GC-FID

No. of sample:	Date of sampling	Sample description
6112_1	-	EPDM Black Rec. (próbka Unirubber)
6112_2	-	EPDM Grey Rec. (próbka Unirubber)
6112_3	-	SBR Rec. (próbka Unirubber)

Parameter determined	Unit	No. of sample:		
		6112_1	6112_2	6112_3
Zinc as Zn	µg/dm <sup>3</sup>	52,5 ± 9,8	73,1 ± 13,7	30,5 ± 5,7
Cadmium as Cd	µg/dm <sup>3</sup>	<0,50 (0,50±0,10)*	<0,50 (0,50±0,10)*	<0,50 (0,50±0,10)*
Lead as Pb	µg/dm <sup>3</sup>	11,3 ± 2,2	5,74 ± 1,10	6,08 ± 1,16
Nickel as Ni	µg/dm <sup>3</sup>	<1,0 (1,0±0,2)*	<1,0 (1,0±0,2)*	<1,0 (1,0±0,2)*
Chromium as Cr	µg/dm <sup>3</sup>	<0,50 (0,50±0,13)*	<0,50 (0,50±0,13)*	<0,50 (0,50±0,13)*
Mercury as Hg	µg/dm <sup>3</sup>	0,032 ± 0,005	0,04 ± 0,01	0,04 ± 0,01
Arsenic as As	µg/dm <sup>3</sup>	<1,0 (1,0±0,2)*	<1,0 (1,0±0,2)*	<1,0 (1,0±0,2)*
Antimony as Sb	µg/dm <sup>3</sup>	<1,0 (1,0±0,2)*	<1,0 (1,0±0,2)*	<1,0 (1,0±0,2)*
Copper as Cu	µg/dm <sup>3</sup>	1,62 ± 0,37	0,72 ± 0,16	0,94 ± 0,21
Barium as Ba	µg/dm <sup>3</sup>	11,5 ± 2,0	5,9 ± 1,0	6,2 ± 1,1
Tin as Sn	µg/dm <sup>3</sup>	<1,0 (1,0±0,2)*	<1,0 (1,0±0,2)*	1,1 ± 0,3
Selenium as Se	µg/dm <sup>3</sup>	<1,0 (1,0±0,2)*	<1,0 (1,0±0,2)*	<1,0 (1,0±0,2)*
Chlorides as Cl <sup>-</sup>	mg/dm <sup>3</sup>	<1,00 (1,00±0,10)*	<1,00 (1,00±0,10)*	1,61 ± 0,16
Fluorides as F <sup>-</sup>	mg/dm <sup>3</sup>	<0,20 (0,20±0,04)*	<0,20 (0,20±0,04)*	<0,20 (0,20±0,04)*
Sulphates as SO <sub>4</sub> <sup>2-</sup>	mg/dm <sup>3</sup>	2,69 ± 0,39	2,81 ± 0,41	2,95 ± 0,43
Dissolved organic carbon DOC	mg/dm <sup>3</sup>	15,6 ± 1,6	15,5 ± 1,6	14,3 ± 1,5
Naphthalene	µg/dm <sup>3</sup>	<0,005 (0,005±0,001)*	<0,005 (0,005±0,001)*	<0,005 (0,005±0,001)*
Anthracene	µg/dm <sup>3</sup>	<0,005 (0,005±0,001)*	<0,005 (0,005±0,001)*	<0,005 (0,005±0,001)*
Phenanthrene	µg/dm <sup>3</sup>	0,006 ± 0,002	0,007 ± 0,002	0,006 ± 0,002
Fluoranthene	µg/dm <sup>3</sup>	<0,005 (0,005±0,002)*	<0,005 (0,005±0,002)*	<0,005 (0,005±0,002)*
Benzo(a)anthracene	µg/dm <sup>3</sup>	<0,005 (0,005±0,002)*	<0,005 (0,005±0,002)*	<0,005 (0,005±0,002)*
Chrysene	µg/dm <sup>3</sup>	<0,005 (0,005±0,002)*	<0,005 (0,005±0,002)*	0,015 ± 0,004
Benzo(b)fluoranthene	µg/dm <sup>3</sup>	<0,005 (0,005±0,002)*	<0,005 (0,005±0,002)*	<0,005 (0,005±0,002)*
Benzo(k)fluoranthene	µg/dm <sup>3</sup>	<0,005 (0,005±0,001)*	<0,005 (0,005±0,001)*	<0,005 (0,005±0,001)*
Benzo(a)pyrene	µg/dm <sup>3</sup>	0,0010 ± 0,0003	<0,001 (0,0010±0,0003)*	<0,001 (0,0010±0,0003)*
Indeno(1,2,3-c,d)pyrene	µg/dm <sup>3</sup>	<0,005 (0,001±0,001)*	<0,005 (0,005±0,001)*	<0,005 (0,005±0,001)*
Benzo(ghi)perylene	µg/dm <sup>3</sup>	<0,005 (0,005±0,001)*	<0,005 (0,005±0,001)*	<0,005 (0,005±0,001)*
Benzene	µg/dm <sup>3</sup>	<0,1 (0,10±0,03)*	<0,1 (0,10±0,03)*	<0,1 (0,10±0,03)*
Toluene	µg/dm <sup>3</sup>	<0,1 (0,10±0,03)*	0,10 ± 0,02	0,20 ± 0,04
o,m,p-xylenes	µg/dm <sup>3</sup>	<0,1 (0,10±0,03)*	<0,1 (0,10±0,03)*	<0,1 (0,10±0,03)*
Ethylbenzene	µg/dm <sup>3</sup>	<0,1 (0,10±0,03)*	<0,1 (0,10±0,03)*	<0,1 (0,10±0,03)*

number – Accredited test method (A), scope of accredita

number – Non accredited test method (B) meeting the requirements of PN-EN ISO/IEC 17025:2018-02

\* - lower limit of measuring scope method ± expanded uncertainty measurement for this value for a k = 2 coverage factor and the confidence level of 95 %

**INFORMATION ABOUT ORDER'S EXECUTION**

The date of each test is identifiable through the records available in the Laboratory.

The expanded uncertainty for a k=2 coverage factor and the confidence level of 95 % does not include the sampling.

The results apply solely to received sample under the test conditions.

The tests were performed at the "Energopomiar" permanent location.

Research instructions are available at "Energopomiar" office.

The sample data that may affect the validity of the results (including: description, subject of tests) and purchase order no. were provided by Client.

Sample was collected and delivered by the Customer in plastic bag. Sample condition: unreservedly

Sampling plan: no data

Sampling method: no data

Purpose of the test:

no data

Preparation of the water extract was done in the Environmental Engineering Laboratory: (accreditation No. AB 550).

The water extract was made in accordance with PN-EN 12457-2:2006

Liquid/solid ratio = 10 l/kg

Additional notes:

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Developed by

Anita Dworaczek

Authorized by

Gliwice, 15.01.2025

End of report