West Pomeranian University of Technology, Szczecin
FACULTY OF MARITIME TECHNOLOGY AND TRANSPORT
MATERIALS FIRE PROPERTIES TESTING LABORATORY

TEST REPORT OF THE RESULTS OF TESTING EMISSION OF TOXIC PRODUCTS OF DECOMPOSITION AND COMBUSTION OF MATERIALS

IBR/Z-040-2016 *Signature No:* TZ/PN2855a/085/2016 Szczecin, 15-06-2016

Test method:
TESTING EMISSION OF TOXIC PRODUCTS OF DECOMPOSITION AND COMBUSTION OF MATERIALS acc. PN-B-02855:1988.

Sponsor: **Ciech Pianki Sp. z o.o.**
ul. Wojska Polskiego 65
85-825 Bydgoszcz, Poland

Material: **T-3037SG polyurethane foam**

Composition: -

Manufacturer /supplier: Ciech Pianki Sp. z o.o.
ul. Wojska Polskiego 65
85-825 Bydgoszcz, Poland

Toxicity indicator

Decomposition temperature	W_{LC50}						W_{LC50M}	W_{LC50SM}
	CO	CO_2	HCN	NO_2	HCl	SO_2		
	g/m^3	g/m^3	g/m^3	g/m^3	g/m^3	g/m^3	g/m^3	g/m^3
450 ^{o} C	27	686	627	34167	381	70000	**23.6**	**26.3**
550 ^{o} C	35	120	633	34167	376	70000	**24.1**	
750 ^{o} C	54	86	534	7614	3940756	70000	**31.0**	

The method for determining the uncertainty of measurement: The relative standard uncertainty does not exceed 30% of the normative

Compliance with the requirements: **toxic products** of decomposition and combustion of materials. Material is considered to meet requirement for toxicity products of decomposition and combustion of materials in compliance with polish regulations (Dz.U. [Journal of Laws] from 2002, No. 75, item 690, as amended).

The clauses of test report validity: Report applies only to the sample tested and is not necessarily indicative of the qualities of apparently identical or similar products.

The reprint and the copying: only with the agreement Ciech Pianki Sp. z o.o.
Without the written consent of the Laboratorium Badań Cech Pożarowych Materiałów Zachodniopomorski Uniwersytet Technologiczny in Szczecin the report can be copied only in one piece.

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ilac-MRA
PCA Polskie Centrum Akredytacji BADANIA
AB 304
TESTING LABORATORY ACCREDITED BY POLISH CENTRE FOR ACCREDITATION No. AB 304
INTERNATIONAL MARITIME ORGANIZATION LIST OF RECOGNIZED TEST LABORATORIES Doc. SSE 1/Circ.1/Rev.2 2015
POLISH REGISTER OF SHIPPING, APPROVAL CERTIFICATE No.TT/2/710405/15
POLSKI REJESTR STATKÓW 1936

Characteristic emission of toxic products of decomposition and combustion of materials

1. Emission of toxic products of decomposition and combustion of materials

Decomposition temperature		Characteristic emission of toxic products					
		CO	CO_2	HCN	NO_2	HCl	SO_2
		g/g	g/g	g/g	g/g	g/g	g/g
450 ° C	Specimen no 1	0.152	0.274	0.000	0.000	0.003	0.000
	Specimen no 2	0.122	0.299	0.000	0.000	0.003	0.000
	Specimen no 3	-	-	-	-	-	-
	Average	0.137	0.286	0.000	0.000	0.003	0.000
550 ° C	Specimen no 1	0.113	1.651	0.000	0.000	0.003	0.000
	Specimen no 2	0.103	1.633	0.000	0.000	0.003	0.000
	Specimen no 3	-	-	-	-	-	-
	Average	0.108	1.642	0.000	0.000	0.003	0.000
750 ° C	Specimen no 1	0.052	2.366	0.000	0.000	0.000	0.000
	Specimen no 2	0.088	2.207	0.000	0.000	0.000	0.000
	Specimen no 3	-	-	-	-	-	-
	Average	0.070	2.286	0.000	0.000	0.000	0.000

Other relevant observations: nothing of importance

Other information:
Sampling for testing: test samples obtained and delivered by the Employer
Date of receipt of samples: 23-05-2016

Declaring: The results of investigation treat to behaviour of samples to investigations of product in special conditions of investigation; they can not intended as a means of assessing the full potential the fire hazard of the materials or products in use.

Performer of tests:

Renata Dobrzyńska

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An authorizer report:

KIEROWNIK LABORATORIUM

dr inż. Renata Dobrzyńska

Date and place of test - 14 ÷ 15.06.2016, Szczecin