Removal of asbestos-containing materials on the example of the city of Opole

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Introduction

One of the first document concerning the removal of asbestos-containing products, adopted on 14th May 2002 by the Council of Ministers, was the Programme for removal of asbestos and products containing asbestos used in Poland [1]. The National Treatment Programme of Asbestos in years 2009-2032 continues and updates the previous programme [2].

The main objectives of this programme primarily are: removal and disposal of asbestos-containing products, nationwide minimization of the negative health effects associated with exposure to asbestos, and elimination of harmful effects of asbestos on the environment [3].

Stocktaking of asbestos-cement materials within the territory of Opole city

A part of the plan for disposal of products containing asbestos for the city of Opole during the years 2010-2032, a stocktaking of building facilities covered with asbestos cement panels has been performed [4, 5]. Table 1 shows the results of the stocktaking, which is divided according to the urgency of removal of asbestos-containing products.

Table 1

Stocktake results presented according to the degree of urgency for utilization of products containing asbestos in reference to [5]

No.	Degree of urgency	Description	Surface in [m²]	Quantity in [Mg]	Quantity in [%]
1.	I	Immediate removal or repair required	14 196	185	9.6
2.	II	Re-evaluation required in the term of one year	121 899	1652	85.4
3.	III	Re-evaluation required in the term of five years	7 461	97	5.0

Within the territory of the city of Opole (more than 85%) the asbestos-containing products are ranked to the 2nd degree of urgency for removal.

Table 2 indicates the quantity of products containing asbestos within the territory of the city of Opole. The total amount is 2,594 Mg, of which the largest part (over 37%) are asbestos cement corrugated roof panels.

The total cost of disassembly, transportation and disposal of asbestos waste, as well as replacement of roof covering materials, and modernization of buildings are presented in Table 3. The total cost for implementing the plan for removal of asbestos-containing waste within the city of Opole will reach more than PLN 17 million, of which over 60% consist replacing façade claddings.

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Table 2

Number of products containing asbestos within the territory of Opole by [5]

No.	Type	Quantity in [Mg]
1.	*Asbestos cement corrugated roof panels*	966
2.	*Asbestos cement flat roof shingles and panels*	270
3.	*Acekol type asbestos cement façade cladding panels*	598
4.	*Chutes, drainpipes and accelerators' housings*	100
5.	*Water supply pipes and sewage systems*	660
Total:		2594

Table 3

Total costs for implementing the plan for removal and disposal of asbestos containing materials for the city of Opole for the years 2014-2032, in thousands of PLN [5]

No.	Specification	Period		Total
		2014-2022	2023-2032	
1.	*Roof panels*	2 716	2 716	5 432
2.	*Façade cladding panels*	5 294	5 294	10 588
3.	*Elevators' housings, chutes, pipes and systems*	665	545	1 210
Total:				**17 230**

Summary

On the basis of the stock-take performed in 2012-2014, it was found that in the city of Opole is more than 2.5 thousand Mg of asbestos-containing products. More than 85% of these products are in the second degree of urgency removal. Estimated costs for removing asbestos-containing products in the years 2014-2032 amount to more than PLN 17 million.

Literature

1. Programme for disposal of asbestos and asbestos-containing products used in Poland, Warsaw, May 2002.
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