



**COBRO - PACKAGING RESEARCH INSTITUTE**  
**LABORATORY FOR PACKAGING MATERIALS**  
**AND CONSUMER PACKAGING TESTING**

PL 02-942 WARSAW, 11 Konstancińska Str.  
Phon.: (48-22) 842-20-11 Fax: (48-22) 842-23-03 e-mail: lab\_opak\_jedn@cobro.org.pl



AB 185

## TEST REPORT

DOJ-531- 477/2/16

**Testing compliance with PN-EN ISO 8317:2016-03**  
**(idt. EN ISO 8317:2015, ISO 8317:2015) standard**  
**“Child-resistant packaging- Requirements testing procedures for reclosable packages.”**

Tests made for:

Sonax GmbH  
Münchener Str. 75  
86633 Neuburg

Order dated: 2016/09/15

Tests made by:

Anna Wójcik (M. Sc.)  
Justyna Król (M. Sc.)  
Joanna Kwiatkowska  
Stanisław Nagler

Report prepared by:

Anna Wójcik (M.Sc.)

Confirmed by:

Monika Kaczmarczyk (Ph.D, Eng.)

Warsaw, 2016/11/04

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The results of tests refer exclusively to the subject of testing. Without written permission of the Laboratory for Packaging Materials and Consumer Packaging Testing, this report cannot be copied partially. It is admissible only to copy the whole report.  
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## 1. Subject of testing

Tests covered transparent bottle (vol. 750 ml) - Drawing No.: czp 8350.03 (Annex 1); specification: BO09-028-00750-01 SONAX SCHEIBENENTEISER (Annex 2) with trigger sprayer - Drawing No.: 991-1201525, revision: 00 (Annex 3); specification: OPAD 2 TRIGGERSPRAYERS, version: 04.03.2016.



The customer has provided instructions for opening and closing the package in the form of graphics placed on the sprayer top. Samples were delivered 2016/09/15 by the customer. In order to carry out the tests, an employee of COBRO Laboratory For Packaging Materials And Consumer Packaging Testing, filled the samples with water as a substitute.

## 2. Method of testing

Tests were conducted in accordance with methodology described in standard PN-EN ISO 8317:2016-03.

Tests were made with the participation of children by use of a sequential method.

## 3. Result of testing

### 3.1. Tests with child participants

Tests with child participants were conducted under supervision of the following kindergarten staff:

1. Agnieszka Zaręba
2. Justyna Kazulo-Wojciechowska
3. Ewa Michalska
4. Jolanta Różycka
5. Monika Sawaniewicz
6. Agnieszka Brach
7. Grażyna Majchrzak
8. Teresa Koper

9. Alicja Patowska
10. Agata Czwótek
11. Iwona Paluch
12. Marzena Florczak
13. Anna Glajzner
14. Barbara Żabińska
15. Marta Szaniawska-Szopa
16. Jolanta Krzepińska
17. Karolina Nalazek

Number of child participants – 52

Period of tests: 2016/10/11 – 2016/10/27 in 6 kindergarten

**Table 1.** Children's gender

Gender of child participants	Number of children	Percentage value [%]
boys	26	50
girls	26	50

**Table 2.** Age of child-participants

Age of child participants [months]	Number of children	Percentage value [%]
42-46	28	54
47-51	24	46

**Table 3.** Structure of child participants (percentage value) based on tests location

Tests location	Number of children	Percentage value [%]
Town population above 100.000	26	50
Town population below 100.000	16	31
Rural areas	10	19

**Table 4.** Number of children, participating in tests in the presence of COBRO specialists

COBRO specialists	Number of children	Percentage value [%]
Justyna Król	15	29
Joanna Kwiatkowska	14	27
Stanisław Nagler	9	17
Anna Wójcik	14	27

**Table 5.** List the exact instructions given to children by supervising research

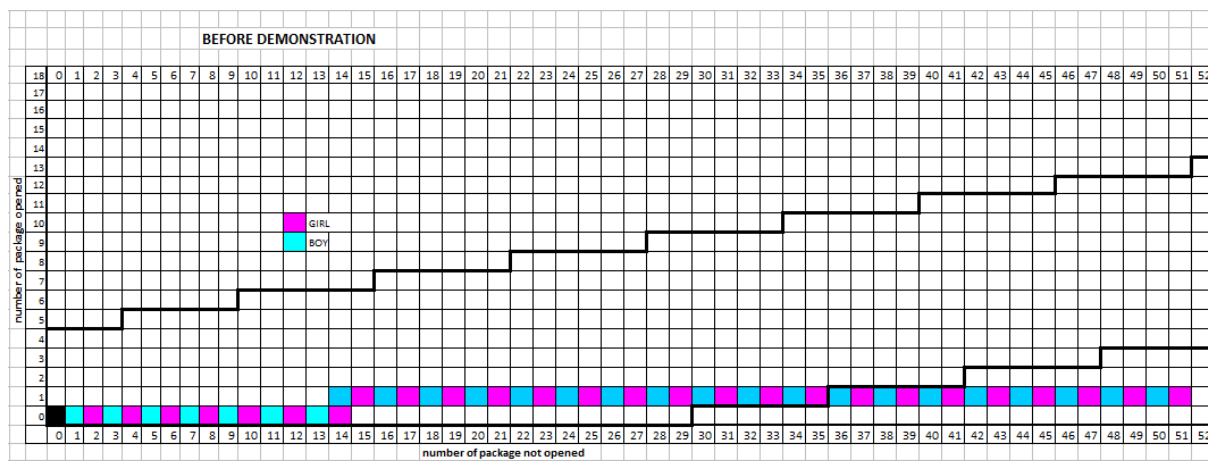
Open this bottle - please. Try to do it again, please.
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### Result of testing with child participants:

#### A. Children who opened the packaging before the demonstration: 1

**Table 6.** Statistical data on children who opened the packaging before the demonstration

Gender	Age (months)	Comments
boy	44	The boy has opened the bottle after 43 second by unscrewing the upper part of trigger sprayer.

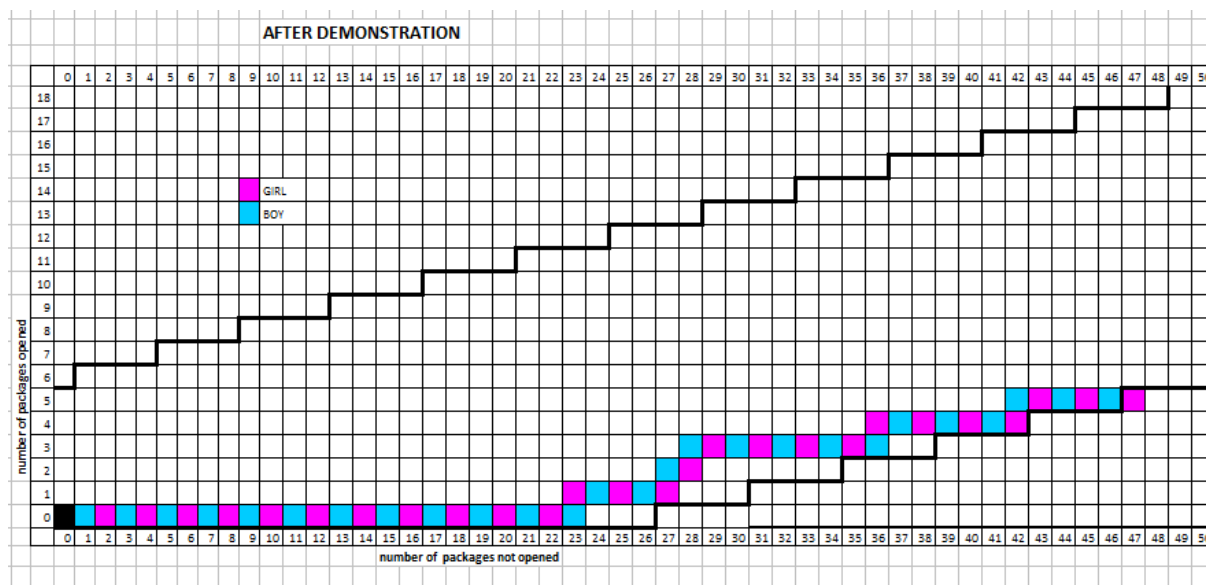


**Chart 1.** Sequential method, a testing on a group of children before demonstration on how to open the presented packaging

#### B. Children who opened the packaging after the demonstration: 5

**Table 7.** Statistical data on children who opened the packaging after the demonstration

Gender	Age (months)	Comments
girl	45	The girl was able to open the bottle after 1 min 7 seconds using force to rotate the end of it while pressing the lever of the sprayer.
boy	49	Boy has opened the bottle after 1 min 20 seconds, without rotating the top of the sprayer to the ON position and was able to get to the content of the packaging.
girl	46	The girl was able to open the bottle in traditional way after 25 seconds.
boy	48	The boy was able to open the bottle in traditional way after 30 seconds.
boy	49	Boy has opened the bottle after 1 min 20 seconds, without rotating the top of the sprayer to the ON position and was able to get to the content of the packaging.



**Chart 2.** Sequential method, a testing on a group of children after the demonstration on how to open the packaging

**Table 8.** Percentage value of children who failed to open the packaging

Share of children	[%]
Share of children who were unable to open the packaging within the first 5 min. of the testing (without the demonstration on how to open the packaging)	98
Share of children who were unable to open the packaging within the whole 10 min-long testing (after the demonstration on how to open the packaging)	88,5

**Conclusion: positive result of tests with child participants.**

### 3.2. Tests with adult participants

Period of tests: 2016/09/23 - 2016/09/27

Tests conducted in 3 medical centres

Number of adult participants – **100**

**Table 9.** Age of adult participants

Age of adult participants	Number of men	Number of women
50-54 years	8	17
55-59 years	7	18
60-70 years	15	35

**Table 10.** Number of adult-participants in the presence of COBRO specialists

COBRO specialists	Number of adults	Percentage value [%]
Joanna Kwiatkowska	50	50
Stanisław Nagler	50	50

**Table 11.** Number of adult participants according to testing locations

Testing location	Number of adults
Warsaw, Medical Center, Romera	52
Warsaw, Medical Center, Jagiellońska	10
Warsaw, Medical Center, Dąbrowszczaków	38

**Table 12.** List the exact instructions given to adults by research supervisors

Could I ask you to open this bottle?
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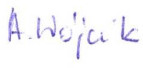


**Results of testing with adult participants**

- A. Number of adult participants who managed to open and close the packaging correctly: **100 adults, (100%** of all participants).
- B. Number of adult participants who managed to open the packaging correctly, but were unable to close it correctly: **0 adults, (0%** of all participants).
- C. Number of adult participants who failed to managed to open and close the packaging: **0 adults, (0%** of all participants).

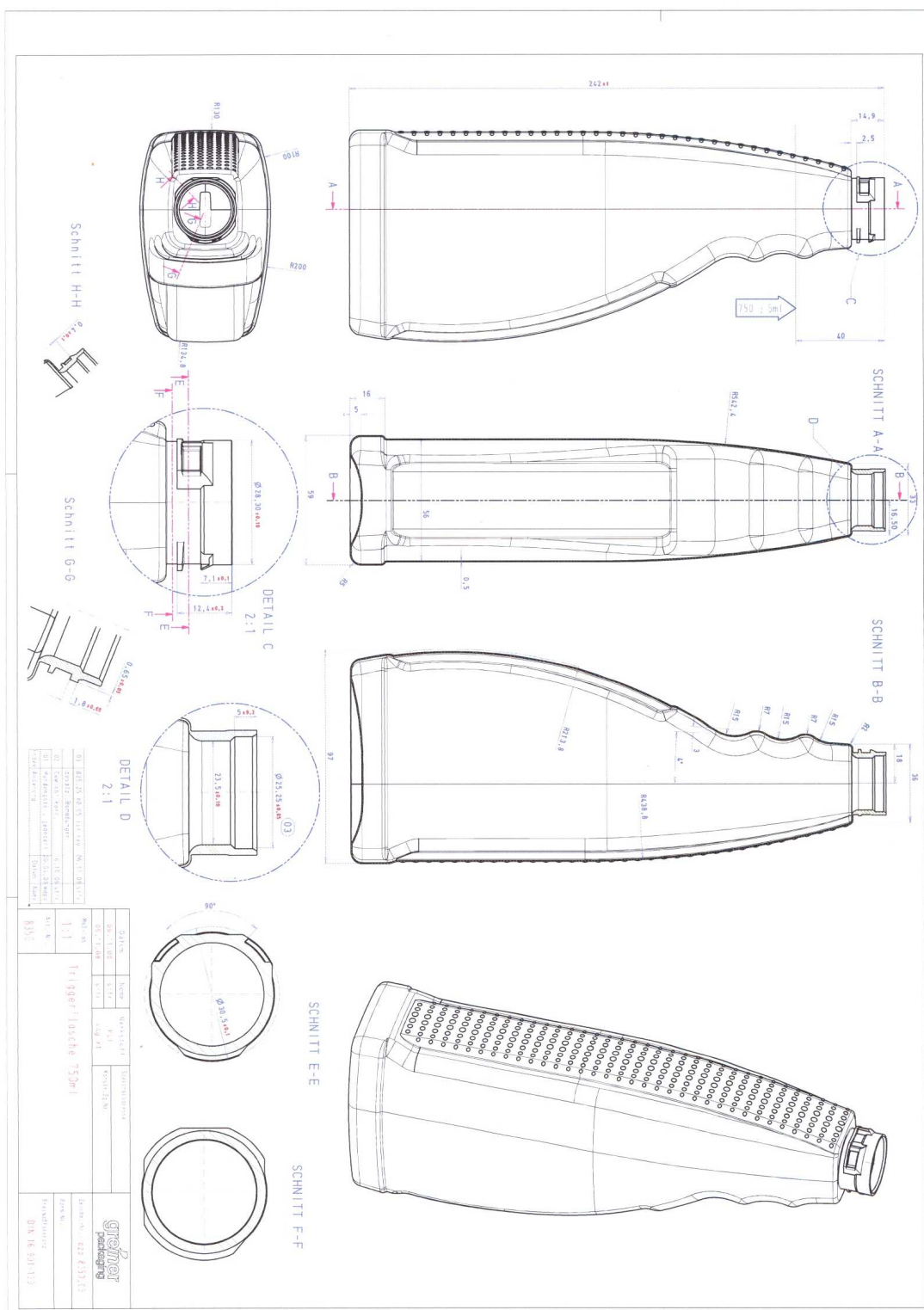
**Conclusion: Positive result of tests with adult participants.**

**4. Summary**

The evaluation of the packaging proves that all requirements of PN-EN ISO 8317:2016-03 are fulfilled.

Report prepared by : Anna Wójcik (M. Sc.)  	Authorized by : Małgorzata Pawlicka (M. Sc. Eng.)  	Confirmed by: Monika Kaczmarczyk (PhD, Eng.) Acting Manager of Laboratory of Materials and Consumer Packaging Testing 
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## Annex 1.







## Annex 3.

