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Testing laboratory No. 1007.1 accredited by ČIA according to ČSN EN ISO/IEC 17025:2018

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No. 415000183-02

## ACCREDITED LABORATORY TEST REPORT No. 415000183-02

**Client:** Lafarge Cement S.A.  
VAT: PL5261060765

**Address:** Warszawska 110, 28-366 Małogoszcz, Poland

**Test:** Laboratory measurement of airborne and impact sound insulation, measurement of the improvement of impact sound insulation according standards EN ISO 10140-2, ČSN EN ISO 10140-3, ČSN EN ISO 10140-1, Annex H

**Subject of the test:** Cement iX screed + Airium layer with 2x Goldflex mat

**Sample received on:** 06.10.2020

**Report elaborated by:** Ing. Miroslav Figalla

**Place and date of issue:** Zlín, 01.07.2022

**Annex:** The technical description of the floor construction – 1 page



  
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Head of Accredited Testing Laboratory

**Note: The results given in this Test Report apply only to the sample tested by our laboratory!**  
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**Test results:**

Reg. No.	Product tested	Test results
48/22 47/22	– Cement screed, thickness 46-47 mm – 2 x Goldflex mat thickness 5 mm, – Airium layer thickness 50 mm, 12 kg/m <sup>2</sup> , – reference concrete floor thickness 140 mm, 320 kg/m <sup>2</sup> .	$R_w (C; C_{tr}) = 61 (-1; -6) \text{ dB}$ $L_{n,w} (C_i) = 50 (0) \text{ dB}$
49/22	– Cement screed, thickness 46-47 mm – 2 x Goldflex mat thickness 5 mm, – Airium layer thickness 50 mm, 12 kg/m <sup>2</sup> .	$\Delta L_w = 29 \text{ dB}$

The courses of sound reduction index, normalized impact sound pressure level and improvement of impact sound insulation depend on the frequency, and further measurement data are shown in standard measuring records on pages 5 - 7.

**Uncertainty of measurement**

The measurement uncertainty is expressed in accordance with ČSN EN ISO 12999-1 using a standard deviation of reproducibility. Measurement results including uncertainty are as follows:

$$R_w = (61,6 \pm 2,4) \text{ dB} \quad R_w + C = (59,6 \pm 2,6) \text{ dB} \quad R_w + C_{tr} = (54,8 \pm 3,0) \text{ dB}$$
$$L_{n,w} = (49,7 \pm 3,0) \text{ dB} \quad L_{n,w} + C_i = (50,3 \pm 3,0) \text{ dB}$$
$$\Delta L_w = (29,3 \pm 2,2) \text{ dB}.$$

The values are determined for the expansion factor  $k = 2$ , which corresponds to a confidence level of 95% for the two-sided interval.