

## Declaration of Performance

According to Construction Products Regulation EU N° 305/2011

No.: 04-19

1.	Unique identification code of the product-type:	TUNNEL-40-54(T)
2.	Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):	See product label and marking
3.	Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:	Fire detection and fire alarm systems – Part 24: Components of voice alarm systems – Loudspeakers; EN 54-24:2008
4.	Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):	DNH AS Gruveveien 2-4 3770 Kragerø Norway  Phone: +47 35 98 56 00 Fax: +47 35 98 56 10 Email: <a href="mailto:dnh@dnh.no">dnh@dnh.no</a>
5.	Where applicable, name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12(2):	Not applicable
6.	System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:	System 1
7.	In case of the declaration of performance concerning a construction product covered by a harmonized standard:	EN 54-24:2008 1438 CNBOP
8.	In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:	Not applicable

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### 9. Declared performance

All requirements including all Essential Characteristics and the corresponding performances for the intended use or uses indicated in point 3 above have been determined as described in the hEN mentioned in the table below.

Essential characteristics	Performance	Harmonised technical specification EN 54-24:2008
1 Frequency response limit	Passed	Section 4.2
2 Reproducibility	Passed	Section 5.2
3 Rated impedance	Passed	Section 5.3
4 Horizontal and vertical coverage angles	Passed	Section 5.4
5 Maximum sound pressure level	Passed	Section 5.5
6 Durability	Passed	Section 4.3
7 Construction	Passed	Section 4.4
8 Marking and data	Passed	Section 4.5
9 Rated noise power (durability)	Passed	Section 5.6
10 Enclosure protection	Passed	Section 5.18
11 Dry heat (operational)	Passed	Section 5.7
12 Dry heat (endurance)	Passed	Section 5.8
13 Cold (operational)	Passed	Section 5.9
14 Damp heat, cyclic (operational)	Passed	Section 5.10
15 Damp heat, steady state (endurance)	Passed	Section 5.11
16 Damp heat, cyclic (endurance)	Passed	Section 5.12
17 Sulfur dioxide corrosion (endurance)	Passed	Section 5.13
18 Shock (operational)	Passed	Section 5.14
19 Impact (operational)	Passed	Section 5.15
20 Vibration, sinusoidal (operational)	Passed	Section 5.16
21 Vibration, sinusoidal (endurance)	Passed	Section 5.17

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Johan R. Edwardsen - Quality Assurance Manager

Kragerø, Norway 11.03.2019

