

Declaration of Performance



**CARBON NEUTRAL
SUSTAINABLE
RECYCLED**

1	Product	Road traffic noise reducing device comprising acoustic panel and structural post. Absorptive 45mm noise barrier combined with Steel post
2	Unique Product Reference	TENB45A / Post
3	Intended use	To reduce noise along highway, traffic and rail corridors
4	Manufacturer	Tilon CG Ltd, Unit 23 Rassau Industrial Estate, Ebbw Vale, Blaenau Gwent. NP23 5SD
5	Assessment and verification of constancy performance	System 3, Annex V of EU Regulation 303/2011
6	Notified body	MFPA Leipzig GmbH, Hans-Weigel-Straße 2b, 04319 Leipzig, (NANDO certification number NB0800) BSI Assurance UK Ltd, Kitemark Court Davy Avenue Knowlhill, Milton Keynes MK5 8PP (NANDO certification number NB0086)
7	Testing standards	BS EN14388 (2005), BS EN 1793 (1998), BS EN 1794 (2003)
8	Quality Management System	ISO9001 (2015) Quality Assurance audited by SGS (UKAS certification number 0005) management system,
	Scope	Initial factory production control and continuous surveillance, assessment and evaluation of factory production control. Certificate number GB16/871271 for the factory control and management system
9	Declared performance	To comply with BS EN 14388 (2005)

Harmonised standard BS EN 14388: 2005

Essential Characteristics	Declared Performance	Accredited Harmonised Technical Specification and report number
Airborne sound insulation DLR	30dB	Salford Uni. EN1793-2 2012 4143-3848 1/5/19 Leipzig ITT ATP report 2.1/18-293-2 in compliance with BS EN 1793-2 1998 & 2012
Sound absorption DL _α	9dB	Salford Uni. EN1793-1 1998 4143-3849 1/5/19 Leipzig ITT ATP report 2.1/18-293-2 in compliance with BS EN 1793-1 1998 & 2012
Resistance to loads		
Self weight - acoustic element		
Dry weight	0.142kN/m ² (0.142kN/m ²)	Leipzig EN1794-1 2003 PB2.1-18-293-2-1 11/4/19 (Leipzig EN1794-1 2011 PB2.1-18-293-2-1 11/4/19)
Reduced wet weight	0.204kN/m ² (0.204kN/m ²)	Leipzig EN1794-1 2003 PB2.1-18-293-2-1 11/4/19 (Leipzig EN1794-1 2011 PB2.1-18-293-2-1 11/4/19)
Wet weight	0.233kN/m ² (0.233kN/m ²)	Leipzig EN1794-1 2003 PB2.1-18-293-2-1 11/4/19 (Leipzig EN1794-1 2011 PB2.1-18-293-2-1 11/4/19)
Maximum vertical load - element	3.9kN/m (3.9kN/m)	Leipzig EN1794-1 2003 PB2.1/18-293-2-2 11/4/19 (Leipzig EN1794-1 2011 PB2.1/18-293-2-2 11/4/19)
Impact of stones	Pass (Pass)	Leipzig EN1794-1 2003 PB2.1/18-293-2-3 11/4/19 (Leipzig EN1794-1 2011 PB2.1/18-293-2-3 11/4/19)
Risk of fallen debris	Class 3 (Class 2)	Leipzig EN1794-2 2003 PB2.1/18-293-2-4 11/4/19 (Leipzig EN1794-2 2011 PB2.1/18-293-2-4 11/4/19)
Maximum normal 90 degree load - acoustic element (wind,static self weight)	1kN/m ²	BSI Assurance UK Ltd in compliance with BS EN 1794-1 EN1794-1 2003 The David French Partnership 14851
Maximum normal 90 degree load - structural element (wind,static self weight)	See table 1	BSI Assurance UK Ltd in compliance with BS EN 1794-1 EN1794-1 2003 The David French Partnership 14851

Maximum normal 90 degree load - acoustic element (dynamic snow clearance)		12.9kN / (2m x 2m) (12.9kN / (2m x 2m))	Leipzig EN1794-1 2003 PB2.1/18-293-2-6 11/4/19 (Leipzig EN1794-1 2011 PB2.1/18-293-2-6 11/4/19)
Maximum normal 90 degree load - structural element (dynamic snow clearance)		See table 1	BSI Assurance UK Ltd in compliance with BS EN 1794-1 EN1794-1 2003 The David French Partnership 14851
Light reflectivity		NPD Class 3	EN1794-2 2003 Leipzig EN1794-2 2011 PB2.1/18-293-2-7 11/4/19
Resistance to brush fire		Class 1 (Class 1) (Class 1)	Leipzig EN1794-2 2003 PB3.1/19-095-1 (Leipzig EN1794-2 2011 PB3.1/19-095-1) (Leipzig EN1794-3 2016 PB3.1/19-095-1)
Environmental protection / release of dangerous substances		NPD	
Means of escape		NPD	
Durability:	Acoustic characteristic	40 years	
	Non-acoustic characteristics (service life)	40 years	

Key

Standards harmonized at 2005

Standards that have been superceeded but NOT harmonized

10 Declaration

The performance of the products identified in Points 1 and 2 above is in conformity with the declared performance in Point 9

Signed on behalf of the manufacturer by



Position

BUSINESS DEVELOPMENT MANAGER

Date and place of issue

29th November 2019

Tilon CG Ltd. Unit 23 Rassau Industrial Estate, Ebbw Vale, NP23 5SD

Document No. QF39

ISSUED BY H.ANDREWS 180419

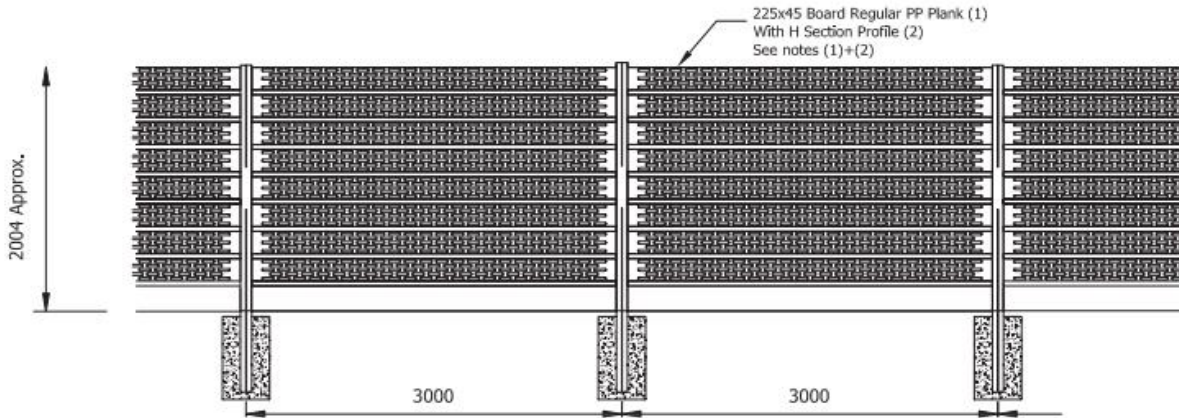
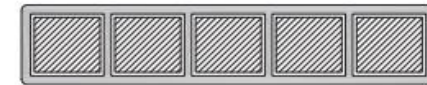
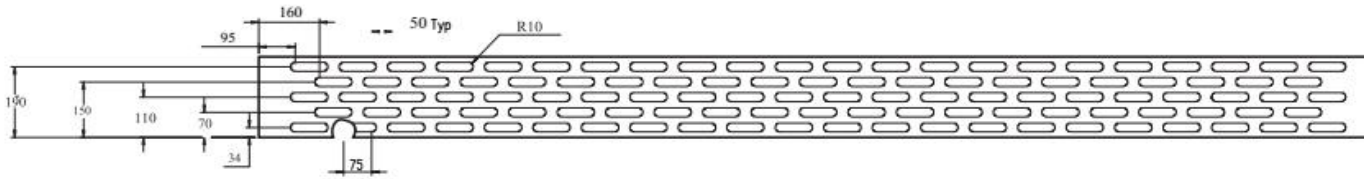
Table 1:

Schedule of Posts and Capacities in accordance with:

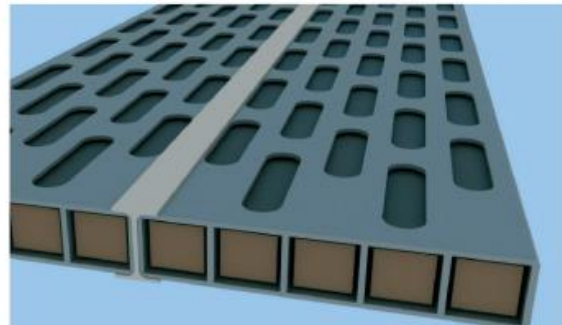
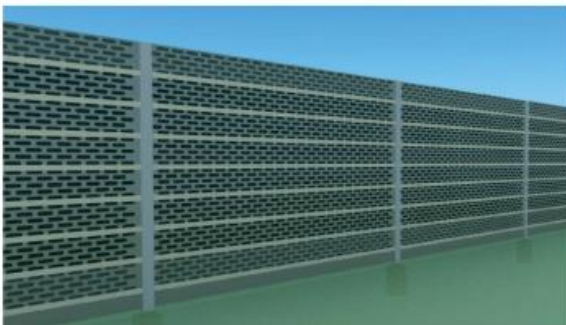
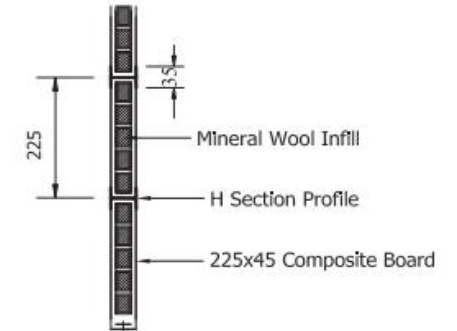
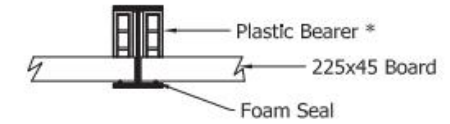
- BSEN 1990: Basis of Structural Design
- BSEN 1991-1-1 & NA: Actions on structures: Densities of Steel Structures, Self Weight
- BSEN 1993-1-1 & NA: Design of Steel Structures: General Rules
- BSEN 1794-1: Road Traffic Noise Reducing Devices – Non Acoustic Performance

Barrier Height (m)	Post Size	Normal Load at 3.0m centres (kN/m ² SLS)	Distributed Load (kN/m ULS)	Snow Load (kN/m SLS)
1.5	127x76 UB 13	4.3	23.16	13
2	127x76 UB 13	2.4	23.16	12
2.5	127x76 UB 13	1.6	23.16	10
3	127x76 UB 13	0.9	23.16	10
3.5	152x89 UB 16	0.95	33.83	14
3.5	178x102 UB 19	1.4	47.03	21
4	178x102 UB 19	0.9	47.03	21
4	203x102 UB 23	1.3	64.35	28
4.5	203x102 UB 23	0.95	64.35	28
4.5	203x133 UB 30	1.1	83.88	31

* Dimension to suit final post dimensions



TYPICAL PART ELEVATION



Revision	Description	By	Date
-	-	-	-
STATUS:			
		Tilon CG Ltd Unit 23, Rassau Ind. Est. Ebbw Vale Gwent, Wales, UK. NP23 5SD	
DRAWING TITLE:		Tel: +44 (0) 1495 300 030 Email: sales@tilon.co.uk	
Tilon Absorptive Noise Barrier - TENB45A		Design	RF 25/02/19
PROJECT:		Checked	MI 25/02/19
		Scale	NTS
		Project No.	Drawing No.
		Rev.	-