Certificate of constancy of performance

0402-CPR-SC0221-16

In compliance *with Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011* (the Construction Products Regulation or CPR), this certificate applies to the construction product

Road restraint systems - Part 5: Product requirements and evaluation of conformity for vehicle restraint systems

Safety barriers for use in vehicle restraint system in circulation areas, with specifications and performances as specified on page 2-5 in this certificate.

Product name: Nordic K N2, Nordic SF N2, Nordic SF H2 High, Nordic W N2, Nordic W H2 High, Nordic W H2, Nordic R H2 High, Nordic R N2 and Nordic M N2

placed on the market under the name or trademark of

Nordic Road Safety AB
Svetsarvägen 4
SE-861 36 Timrå Sweden

and produced in the manufacturing plants

same as above and at factories NRS1 and NRS2

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in annex ZA of the standards

EN 1317-5:2007+A2:2012 and EN 1317-5:2007+A2:2012/AC:2012

under system 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

constancy of performance of the construction product.

This certificate was first issued on 2016-04-20 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

Issued by notified body 0402
The validity of this certificate can be verified on our website.

Lennart Aronsson
Product Certification Manager

Martin Tillander
Project Manager

RISE Research Institutes of Sweden AB | Certification
Box 857, SE-501 15 Borås, Sweden
Phone: +46 10-516 50 00
certifiering@ri.se| www.ri.se

2017-07-06

8P01786

Specification

Product	Description and configuration	
Nordic K N2 CC 2 m/4m	Post distance: Height above road surface: Rail: Mounting alternative Post embedment: Steel post:	2.0 m or 4.0 m 0.63 m (total), 0.55 m (centre of rail) K-profile min: 0.8 m, acceptable variation 0.8 -1.33 m length: 1420 mm, acceptable variation 1420-1950 mm, Sigma profile
Nordic SF N2 CC 4m	Post distance: Height above road surface: Rail: Mounting alternative Post embedment: Steel post:	4.0 m 0.69 m (total), 0.58 m (centre of rail) W- profile min: 0.8 m length: 1445 mm, C- profile
Nordic SF H2 High CC 2m	Post distance: Height above road surface: Rail: Steel post Top Guide: Base plate: Steel tube	2.0 m 1.2 m/1.4 m (total), 0.58 m (centre of rail) W- profile profile 55 × 55 mm 120 × 80 × 5 mm 210 × 210 × 25 mm length 1200 mm, Ø 127 × 6 mm
	Height 1.2 m	
	Mounting alternative Base plate Post embedment in soil: Steel post length: Infillings:	 Edge beam height 100 mm or road level min 1.2 m 1031, 1131, 1181 mm area 1000 × 171, 1120 × 92 mm* placed from centre of post away from road
	Height 1.4 m	
	Mounting alternative Base plate Post embedment in soil: Steel post length: Infillings:	 Edge beam height 100 mm or road level min 1.2 m 1231, 1331, 1381 mm area 1000 × 252, 1320 × 82 mm* placed from centre of post away from road
	*Infillings width can increase in the lower area provided that the working width limit is not exceeded and not adding stiffness to the parapet.	
Nordic W N2 CC 2 m/4m	Post distance: Height above road surface: Rail: Mounting alternative Post embedment: Steel post:	2.0 m or 4.0 m 0.70 m (total), 0.55 m (centre of rail) W- profile min: 0.8 m, acceptable variation 0.8 -1.24 m length: 1420 mm, acceptable variation 1420-1950 mm, Sigma profile
Nordic W H2 High CC 2.0 m	Height above road surface: Post distance: Steel post base plate: "Test Post" * "CE Post" Steel post dimensions: Edge beam height: Steel rail:	1.2 m (total), 0.575 m (center of rail) 2.0 m 365 × 340 mm, thickness 25 mm (offset post) 210 × 210 mm, thickness 25 mm (center post) Square 60 mm, thickness 8 mm Length 1.04 m 0.10 m Rectangular 120 × 80 mm, thickness 5 mm

Product	Description and configuration	
Nordic W H2 CC 1.8 m	Post distance: Height above road surface: Rail: Top guide:	1.8 m 1.2 m/1.4 m (total), 0.55 m (centre of rail) W- profile U-profile
	Height 1.2 m	
	Steel post:	length: 1040, 1140, 1170 and 1370 mm profile: 55 × 55 mm
	Mounting alternative Post embedment in concrete: Post embedment in soil: Base plate: Steel tube Infillings:	 min: 0.28 m min: 1.2 m plate: 210 × 210 × 25 mm length: 1200 mm, profile: Ø 127 × 6 mm area: 1145 × 120, 1000 × 279 mm placed from centre of post away from road
	Height 1.4 m	
	Steel post:	length: 1240, 1340 and 1370 mm profile: 55 × 55 mm
	Mounting alternative: Post embedment in soil: Base plate: Steel tube: Infillings:	 min: 1.2 m plate: 210 × 210 × 25 mm length: 1200 mm, profile: Ø 127 × 6 mm area: 1345 × 105, 1000 × 387 mm placed from centre of post away from road
Nordic R H2 High CC 2.0 m,	Height above road surface: Post distance: Steel post base plate: "Test Post" * "CE Post" Steel post dimensions: Edge beam height: Steel rail:	1.2 m (total), 0.465 m (centre of lower rail) 2.0 m 365 × 340 mm, thickness 25 mm (offset post) 210 × 210 mm, thickness 25 mm (center post) Square 60 mm, thickness 8 mm Length 1.04 m 0.10 m Top rail: Rectangular 120 × 80 mm, thickn. 5 mm Lower rails: 2 Tubes, Ø88.9 mm, thickn. 3.2 mm
Nordic R N2 CC 4.0 m	Height above road surface: Post distance: Post embedment: Steel post dimensions: Steel rail:	0.73m (total), 0.465 m (center of lower rail) 4.0 m 0.8 m C-profile 120 × 65 mm, thickness 4 mm Length 1.515 m 2 Tubes, Ø88.9 mm, thickness 2.6 mm
Nordic M N2 CC 4.0 m	Post distance: Height from road surface: Rail: Steel post:	4.0 m, mounted in ground tubes 0.6 m (total), 0.55 m (Center of rail) 1 open beam ellipse shape, thickness 3 mm Length: 885 mm, open rectangular C profile 108 × 48 mm, thickness 4 mm

Performance

Classification according to EN 1317-5:2007+A2:2012/AC:2012 (EN 1317-2:2010)

Product	Containment level	Impact severity level	Normalized working width, class [m]	Normalized dynamic deflection, [m]	Normalized vehicle intrusion class, [m]
Nordic K N2* CC 2 m	N2	A	W5 (1.7)	1.5	NA
Nordic K N2* CC 4 m	N2	A	W6 (2.0)	1.9	NA
Nordic SF N2* CC 4 m	N2	A	W3 (1.0)	1.0	NA
Nordic SF H2 High* CC 2m h= 1.2 m Raised edge beam 100 mm Post with base plate	H2	B	W2 (0.8)	0.5	VI3(0.9)
Nordic SF H2 High CC 2m h=1.2 m Roadway level Post with base plate	H2	B	W2 (0.8)	0.6	VI3(0.9)
Nordic SF H2 High CC 2m h=1.2 m Roadway level Post In soil	H2	B	W2 (0.8)	0.6	VI3(0.9)
Nordic SF H2 High CC 2m h=1.4 m Raised edge beam 100 mm Post with base plate	H2	B	W2 (0.8)	0.6	VI3(0.9)
Nordic SF H2 High CC 2m h=1.4 m Roadway level Post with base plate	H2	B	W2 (0.8)	0.6	VI3(0.9)
Nordic SF H2 High CC 2m h=1.4 m Roadway level Post In soil	H2	B	W2 (0.8)	0.6	VI3(0.9)
Nordic W N2* CC 2 m	N2	A	W4 (1.1)	0.9	NA
Nordic W N2* CC 4 m	N2	A	W5 (1.7)	1.5	NA
Nordic W H2 High CC 2.0 m	H2	B	W2 (0.7)	0.5	VI4 (1.1)
Nordic W H2* CC 1.8 m, h= 1.2 m Raised egde beam Post casted in concrete	H2	B	W3 (1.0)	0.8	VI3(1.0)

*ITT

Performance

Classification according to EN 1317-5:2007+A2:2012/AC:2012 (EN 1317-2:2010)

Product	Containment level	Impact severity level	Normalized working width, class (m)	Normalized dynamic deflection, [m]	Normalized vehicle intrusion class, [m]
Nordic W H2 CC 1.8 m, h= 1.2 m Roadway level Post with base plate	H2	B	W3 (1.0)	0.8	VI3(1.0)
Nordic W H2 CC 1.8 m, h= 1.2 m Raised edge beam Post with base plate	H2	B	W3 (1.0)	0.7	VI3(0.9)
Nordic W H2 CC 1.8 m, h= 1.2 m Roadway level Post In soil	H2	B	W3 (0.9)	0.8	VI3(1.0)
Nordic W H2 CC 1.8 m, h= 1.4 m Raised edge beam Post with base plate	H2	B	W3 (1.0)	0.8	VI3(0.9)
Nordic W H2 CC 1.8 m, h= 1.4 m Roadway level Post with base plate	H2	B	W3 (1.0)	0.9	VI3(0.9)
Nordic W H2 CC 1.8 m, h= 1.4 m Roadway level Post In soil	H2	B	W3 (1.0)	0.9	VI3(1.0)
Nordic R H2 High CC 2.0 m	H2	B	W2 (0.7)	0.5	VI3 (1.0)
Nordic R N2 CC 4.0 m	N2	A	W3 (0.9)	0.8	N/A
Nordic M N2 CC 4.0 m	N2	A	W4 (1.3)	1.1	N/A

*ITT

Classification according to EN 1317-5:2007+A2:2012/AC:2012 (EN 1317-2:2010)

Product	Durability	Resistance to snow removal class
Nordic K N2, Nordic SF N2 and H2 High, Nordic R N2 and H2 High, Nordic M N2	Hot dip galvanized, acc. To EN ISO 1461	Class 4
Nordic W N2, H2 and H2 High	Hot dip galvanized, acc. to EN ISO 1461	Class 3