

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 systems in circulation areas, with specification and performance as specified on page 2-4 in this certificate.

### Product name: Vehicle parapet Z B4

placed on the market under the name or trademark of

#### AB Varmförzinkning

Box 144

SE-333 23 Smålandsstenar, Sweden

and produced in the manufacturing plant

AB Varmförzinkning, Fällinge, SE-333 91 Smålandsstenar, Sweden

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 2011-04-11 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product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.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.

Martin Tillander  
Product Certification Manager

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9P00524



## Specification

Product	Description
ZB4-1* to ZB4-6	Post distance: 1.8 m
ZB4-7 to ZB4-17 & ZB4-20	Post distance: 2.0 m
ZB4-1* to ZB4-11 & ZB4-20	Rail: 3 circular open tubeprofile Ø 82.5 mm
ZB4-12 to ZB4-17	Rail: 3 circular tube Ø 82.5 mm
ZB4-1*	Mounting alternative: Casted into concrete: min 0.27 m
ZB4-1 to ZB4-4+ & ZB4-8+ to ZB4-15	Mounting alternative: Footplate: 210 × 210 × 25 mm
ZB4-7 & ZB4-20	Mounting alternative: Vertical foot plate (attachment): 370 × 330 × 25 mm
ZB4-5 to ZB4-6 & ZB4-16 to ZB4-17	Mounting alternative: Grounded in soil: min 1175 mm of post length into soil
ZB4-1* to ZB4-4+ & ZB4-7 to ZB4-15 & ZB4-20	Edge beam (plinth) height: 100 mm or 150 mm (for post in concrete and on footplate)
ZB4-1* to ZB4-17 & ZB4-20	Steel post dimension: 55 × 55 mm
ZB4-2+, ZB4-3+, ZB4-4+, ZB4-8+, ZB4-10+, ZB4-12+ and ZB4-14+	Profile reinforcement post: 622 × 25 mm
ZB4-1*	Steel post length: 1370 mm
ZB4-1, ZB4-2+, ZB4-3+, ZB4-8+, ZB4-9, ZB4-12+ and ZB4-13+	Steel post length: 1020 mm
ZB4-4, ZB4-4+, ZB4-10+, ZB4-11, ZB4-14+ & ZB4-15	Steel post length: 1220 mm
ZB4-5	Steel post length: 2325 mm
ZB4-6	Steel post length: 2575 mm
ZB4-7	Steel post length: 1589 mm
ZB4-20	Steel post length: 1789 mm
ZB4-16	Steel post length: 2362 mm grounded in tube in soil (min 1175 mm of post length mounted in tube, buried in ground)
ZB4-17	Steel post length: 2562 mm grounded in tube in soil (min 1175 mm of post length mounted in tube, buried in ground)
ZB4-1*, ZB4-1, ZB4-2+, ZB4-3+, ZB4-7, ZB4-8+, ZB4-9, ZB4-12+ and ZB4-13	Height above road surface: Total height 1.2 m (Plint height 100 mm) Centre of rails 0.42, 0.69 and 1.16 m
	Height above road surface: Total height 1.25 m (Plint height 150 mm) Centre of rails 0.47, 0.74 and 1.21 m
ZB4-4, ZB4-4+, ZB4-10+, ZB4-11, ZB4-14, ZB4-15 and ZB4-20	Height above road surface: Total height 1.4 m (Plint height 100 mm) Centre of rails 0.42, 0.69 and 1.36 m
	Height above road surface: Total height 1.45 m (Plint height 150 mm) Centre of rails 0.47, 0.74 and 1.41 m
ZB4-5 and ZB4-16	Height above road surface: Total height 1.2 m Centre of rails 0.42, 0.69 and 1.16 m
ZB4-6 and ZB4-17	Height above road surface: Total height 1.4 m Centre of rails 0.42, 0.69 and 1.36 m

## 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]
<b>ZB4-1*</b> cc 1.8 m, post in concrete, height 1.2/1.25 m	H2	B	W3 (0.9)	0.7	VI3 (1.0)
<b>ZB4-1</b> cc 1.8 m, foot plate, height 1.2/1.25 m	H2	B	W3 (0.9)	0.7	VI3 (0.9)
<b>ZB4-2+</b> cc 1.8 m, foot plate, reinforce. post, height 1.2/1.25 m	H2	B	W2 (0.8)	0.5	VI2 (0.7)
<b>ZB4-3+</b> cortén, cc 1.8 m, foot plate reinforce. post, height 1.2/1.25 m	H2	B	W2 (0.8)	0.5	VI2 (0.7)
<b>ZB4-4</b> cc 1.8 m, foot plate, height 1.4/1.45 m	H2	B	W3 (1.0)	0.8	VI3 (0.9)
<b>ZB4-4+</b> cc 1.8 m, foot plate, reinforce. post, height 1.4/1.45 m	H2	B	W3 (0.9)	0.6	VI3 (0.8)
<b>ZB4-5</b> cc 1.8 m, post grounded in soil, height 1.2 m	H2	B	W3 (0.9)	0.7	VI3 (1.0)
<b>ZB4-6</b> cc 1.8 m, post grounded in soil, height 1.4 m	H2	B	W3(1.0)	0.8	VI3 (0.9)
<b>ZB4-7*</b> cc 2.0 m, vertical foot plate, height 1.2/1.25 m	H2	A	W2 (0.8)	0.7	VI2 (0.8)
<b>ZB4-8+</b> cc 2.0 m, foot plate, reinforce. post, height 1.2/1.25 m	H2	B	W2 (0.8)	0.5	VI2 (0.7)
<b>ZB4-9</b> cc 2.0 m, foot plate, height 1.2/1.25 m	H2	B	W3 (0.9)	0.7	VI3 (0.9)
<b>ZB4-10+</b> cc 2.0 m, foot plate, reinforce. post, height 1.4/1.45 m	H2	B	W3 (0.9)	0.6	VI3 (0.7)
<b>ZB4-11</b> cc 2.0 m, foot plate, height 1.4/1.45 m	H2	B	W3 (1.0)	0.8	VI3 (0.9)
<b>ZB4-12+</b> cc 2.0 m, foot plate, reinforce. post, height 1.2/1.25 m	H2	B	W2 (0.8)	0.5	VI2 (0.7)
<b>ZB4-13</b> cc 2.0 m, foot plate, height 1.2/1.25 m	H2	B	W3 (0.9)	0.6	VI3 (0.8)
<b>ZB4-14+</b> cc 2.0 m, foot plate, reinforce. post, height 1.4/1.45 m	H2	B	W3 (0.8)	0.5	VI3 (0.7)
<b>ZB4-15</b> cc 2.0 m, foot plate, height 1.4/1.45 m	H2	B	W3 (0.9)	0.7	VI3 (0.8)
<b>ZB4-16</b> cc 2.0 m, mounted in tube buried in ground, height 1.2 m	H2	B	W3 (0.9)	0.7	VI3 (1.0)
<b>ZB4-17</b> cc 2.0 m, mounted in tube buried in ground, height 1.4 m,	H2	B	W3 (1.0)	0.8	VI3 (0.9)
<b>ZB4-20</b> cc 2.0 m, vertical foot plate, reinforce. post, height 1.4 m	H2	B	W3 (0.9)	0.8	VI3 (0.9)

\* ITT

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Classification according to EN 1317-5:2007+A2:2012/AC:2012

Product	Durability	Resistance to snow removal
ZB4-1 to ZB4-2 and ZB4-4 to ZB4-11 and ZB4-20	Hot dip galvanized, acc. to EN ISO 1461	Class 1 - Rail yield strength $R_{eh} \leq 255$ MPa Class 3 - Rail yield strength $R_{eh} > 255$ MPa
ZB4-3	Anticorrosive (cortén) acc. to EN 10025-5	
ZB4-12+ to ZB4-17	Hot dip galvanized, acc. to EN ISO 1461	Class 4