




## DECLARATION OF PERFORMANCE

DoP no:	Expandable rock bolts_20240619					
Product type:	Virsbolt					
Intended use:	Rock reinforcing in underground mines and tunnels.					
Manufacturer:	Jennmar Sweden AB Nordanövägen 8 SE-737 61 Virsbo Sweden			<a href="http://www.jennmar.se">www.jennmar.se</a>		
Verification of constancy:	System 2+					
Harmonized standard:	EN 1090-1:2009+A1:2011					
Notified body:	RISE Research Institutes of Sweden AB (No 0402) issued certificate no 0402-CPR-C500475					
Specified performance:						
<b>Essential characteristics</b>	<b>Performance</b>					
	<b>Virsbolt 120</b>	<b>Virsbolt 120+</b>	<b>Virsbolt 160</b>	<b>Virsbolt 160+</b>	<b>Virsbolt 240</b>	<b>Virsbolt 240+</b>
Elongation A (min%)	15	25	15	25	15	25
Minimum breaking load (kN)	120	120	160	160	240	230
Tolerances for geometrical data	NPD					
Weldability	NPD					
Fracture toughness	NPD					
Load bearing capacity:						
Dimensioning	Jennmar specifications					
Manufacturing	Jennmar specifications					
Deformation at serviceability limit state	NPD					
Fatigue strength	NPD					
Resistance for fire	NPD					
Reaction to fire	Class A1					
Release of cadmium	NPD					
Emission of radioactivity	NPD					
Durability	NPD					
The performance of the above product is consistent with the stated performance. This DoP has been issued in accordance with Regulation (EU) No 305/2011 under the sole responsibility of the manufacturer listed above.						
Virsbo 20/5-2025						
						
Jonas Lindström Quality & Environmental Manager Jennmar Sweden AB						



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Jennmar Sweden AB, Nordanövägen 8, SE-73761 Virsbo

Virsbolt

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EN 1090-1:2009+A1:2011

Rock reinforcing in underground mines and tunnels

Essential characteristics:

Performance

	<b>Virsbolt 120</b>	<b>Virsbolt 120+</b>	<b>Virsbolt 160</b>	<b>Virsbolt 160+</b>	<b>Virsbolt 240</b>	<b>Virsbolt 240+</b>
Elongation A (min%)	15	25	15	25	15	25
Min break load (kN)	120	120	160	160	240	230
Load bearing capacity:						
Dimensioning	Jennmar specifications					
Manufacturing	Jennmar specifications					
Reaction to fire	Class A1					

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 products

## Execution of steel structures and aluminium structures – Part 1: Requirements for conformity assessment of structural components

Virsbolt/Swellex ERB 120, ERB 160, ERB 240, ERB 120+, ERB 160+, ERB 240+ Expandable rock bolts for use as structural parts in rock installations. Execution class is EXC 2 and basis of manufacture is MPCS with Manufacturers tasks and delivery Method 1.

placed on the market under the name or trademark of

**Jennmar Sweden AB**

Nordanövägen 8  
SE-73761, Virsbo, Sweden

and produced in the manufacturing plant  
same as above

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

**EN 1090-1:2009+A1:2011**

under system 2+ are applied and that

**the factory production control is assessed to be in conformity with the applicable requirements.**

This certificate was first issued on 2024-06-19 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 factory production control certification body.

Issued by notified body 0402.

The validity of this certificate can be verified at RISE homepage.



Martin Tillander  
Director Product Certification

Certificate 0402-CPR-C500475 | issue 2 | 2025-06-10

**RISE Research Institutes of Sweden AB | Certification**

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