# Omega-Bolt® 240 / 240 C

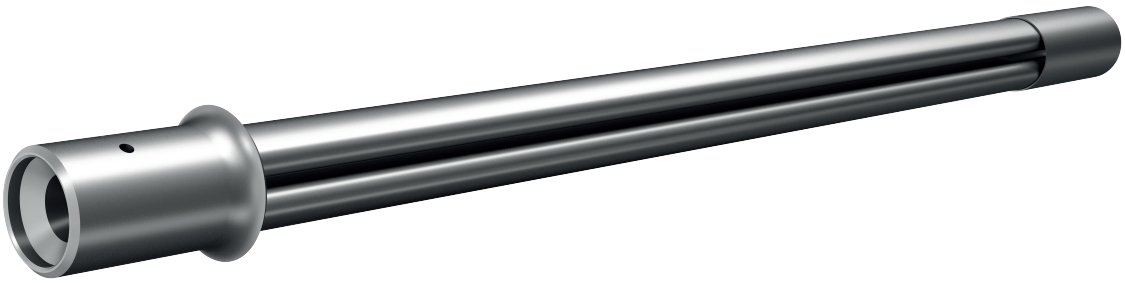
## Product code: OB24 / OB24 C
## Product specification: Inflatable rock bolts
## Category: Friction rock bolts for mining and tunneling

**Introduction**

Omega-Bolt® is manufactured from high-strength steel to assure high loading capacity and good elongation. Omega-Bolt® can accommodate large ground movement and can be utilized to stabilize underground excavation even in weak rocks. Omega-Bolt® is produced with modern tube-forming technology and 100% robotic assembly under strict quality control procedures. After two decades of experience, Omega-Bolt® now features a “full-open gap profile”, which allows the best quality of corrosion protection, avoiding areas with a too thin or too thick coating.

**Main Advantages**

- Immediate load-bearing capacity after installation
- Extra elongation to accommodate even large deformations
- Immediate full load-bearing capacity over the entire installed bolt length
- Trouble-free installation in water-bearing boreholes
- Low sensitivity to vibrations caused by blasting works
- Ability to maintain load-bearing capacity even when undergoing deformations
- Safe and easy installation
- No additional grouting materials are required for installation
- Flexibility in case of differing or varying borehole



**Omega-Bolt® 240 C - thermoplastic coating for corrosion protection and improved service life**

Major parts of Omega-Bolt® are delivered in black steel and are intended for temporary rock reinforcement
In a corrosive environment, or when a longer service life is required, Sandvik Ground Support offers a corrosion-protected version, where the entire rock bolt is covered by a scratch-resistant and flexible thermoplastic coating. The thermoplastic coating is applied evenly on all surface parts, thanks to advanced spraying technology. A specially developed “full-open gap” profile creates a physical barrier to prevent water and corrosive elements from attacking the external steel surface Omega-Bolt®.

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**Technical Specifications**

| | Unit | Omega-Bolt® 240 |
|---|---|---|
| Nominal Ultimate Load [kN](1) | kN | 240 |
| Nominal Yield Load | kN | 200 |
| Minimum Elongation $A_{125}$ (2) | % | 10 |
| External omega profile diameter | mm | 36 |
| External original round profile diam. | mm | 54 |
| Wall thickness | mm | 3 |
| Inflation ferrule stem diameter | mm | 41 |
| Inflation ferrule rim diameter | mm | 46 |
| Upper end-cup diameter | mm | 38 |
| Required borehole diameter | mm | 43-52 |
| Recommended borehole diameter | mm | 45-51 |
| Inflation water pressure | bar | 300 |

(1) Tensile test performed on the entire bolt, after profile inflation, i.e., simulating real condition after rock bolt's installation
(2) Elongation measured on expanded profile, simulating real working conditions after installation

**Type of coating - Thermoplastic Powder fused on steel surface**

| | | |
|---|---|---|
| Chemical resistance in acid conditions (up to 60 °C) | Excellent | ISO 2812 and ISO 4628 |
| Chemical resistance in alkaline condition (up to 60 °C) | Excellent | ISO 2812 and ISO 4628 |
| Coating thickness on profile | ≥150 µm | |
| Coating thickness on inflation bushing | <300 µm | |
| Durability (*) in class Im3 | >15 years | ISO 12944 part 6, underground conditions |
| Durability (*) in class C5-M | >15 years | ISO 20340, for offshore applications |

## Omega-Bolt® Full Product Range of Bolts and Accessories

- Omega-Bolt® 120 kN, the most popular mining bolt, 35-38 mm boreholes
- Omega-Bolt® 160/200: cost-effective solutions for 45-51 mm boreholes
- Connectable Omega-Bolt® 240 for special applications when long inflatable rock bolts are required
- Complete range of flat and domed face plates, including the innovative Omega Opti-Plate 120
- Eye-ball to facilitate installation in broken ground, centralizers to facilitate installation through mining mesh, and ASTM color-code plugs
- Pneumatic, electric, and hydraulic high-pressure inflation pumps and chucks for manual or mechanized installation

All dimensions, weights, quantities and specifications are those applicable at the time of this publication and may be amended from time too time. Please contact your local representative for final confirmation of any key specifications.